



Overzichtsfoto individu in situ

## SKELETAL STATUS



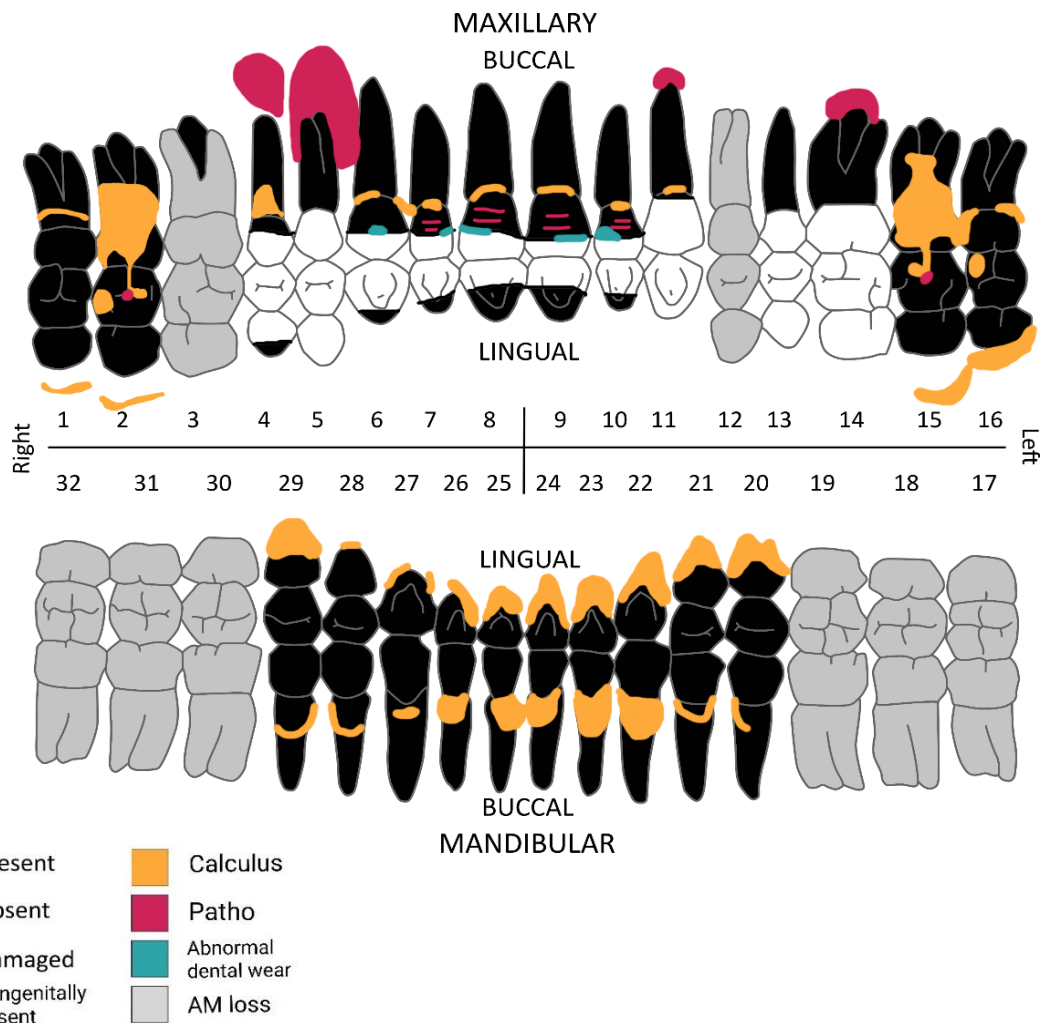


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	P	Cc+, LEH, chipping	Cc+, LEH, chipping	P	I1	9	
7	I2	P	Cc+, LEH, chipping	Cc+, LEH, chipping	P	I2	10	
6	C	P	Cc+, chipping	Cc+, periap. Ab, occl. Ca	P	C	11	
5	Pm1	P	Occl. Ca, periap. Ab	B	AM	Pm1	12	
4	Pm2	P	Cc++, periap. Ab	Occl. Ca	P	Pm2	13	
3	M1	P	buccale wortels AM	Occl. Ca, periap. Ab	P	M1	14	
2	M2	P	Cc+++, occl. Ca	Cc+++, occl. Ca	P	M2	15	
1	M3	P	Cc++	Cc++	P	M3	16	
25	I1	P	Cc+++	Cc+++	P	I1	24	
26	I2	P	Cc+++	Cc+++	P	I2	23	
27	C	P	Cc++	Cc+++	P	C	22	
28	Pm1	P	Cc++	Cc++	P	Pm1	21	
29	Pm2	P	Cc++	Cc++	P	Pm2	20	
30	M1	AM	B	B	AM	M1	19	
31	M2	AM	B	B	AM	M2	18	
32	M3	AM	B	B	AM	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)				
	Max glenoid length (M>36; F<34)				
Humerus	Max length (M>151; M?>149; F?<144; V<140)				
	Vertical head diameter (M>47; F<44.9)	42,1	F		
	Epicondylar breadth (M>60.1; F<60.1)				
Femur	Max head diameter (M>48; F<43)				
	Epicondylar breadth (M>76; F<74)				
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{48}{33} =$	1,5
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{16}{9} =$	1,8
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$=$	/

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	M	2	3	6
Nuchal plane/crest	M	2	3	6
Parietal & frontal bossing	F?	-1	2	-2
External occipital protuberance	M?	1	2	2
Frontal inclination	M?	1	1	1

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	M?	1	3	3
Zygomatic process	M	2	3	6
Supraorbital ridge	M	2	2	4
Zygomatic bone	M?	1	2	2
Orbit shape & margin	M?	1	1	1

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	M	2	3	6
Zygomatic process	M	2	3	6
Supraorbital ridge	M	2	2	4
Zygomatic bone	M?	1	2	2
Orbit shape & margin	M?	1	1	1



<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	M	2	3	6
Mental eminence	M	2	2	4

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	M	2	1	2

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	M	2	1	2

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus			3	0
Greater sciatic notch			3	0
Pubic arc/angle			2	0
Arc composé			2	0
Innominate bone			2	0
Obturator foramen			2	0
Ischial body			2	0
Iliac crest			1	0
Iliac fossa			1	0
Pelvic inlet (midline)			1	0

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus			3	0
Greater sciatic notch			3	0
Pubic arc/angle			2	0
Arc composé			2	0
Innominate bone			2	0
Obturator foramen			2	0
Ischial body			2	0
Iliac crest			1	0
Iliac fossa			1	0
Pelvic inlet (midline)			1	0

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Range	S.D.
	Left		
	Right		

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	
		Surface texture	
		Microporosity	
		Macroporosity	
		Apical changes	
	0	Composite score	0
		Age range	

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Cranial suture closure (Meindle & Lovejoy 1985)	Vault sites		
	1	Midlambdoid	1
	2	Lambda	1
	3	Obelion	1
	4	Ant. Sagittal	1
	5	Bregma	1
	6	Midcoronal	2
	7	Pterion	1
	Composite score		8
	Age range		30,3-48,5
	Lateral-anterior sites		
	6	Midcoronal	2
	7	Pterion	1
	8	Sphenofrontal	3
	9	Inf. sphenotemp.	2
	10	Sup. sphenotemp.	0
	Composite score		8
	Age range		36,6-54,4



Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>22		

Sternal end (Falys & Prangle 2015), vanaf 30 jaar		
Marker	Left	Right
Topography		
Porosity		
Osteophyte formation		
Total	0	0
Age		

## STATURE

Lange pijpbeenderen niet compleet.



Overzichtsfoto individu in situ



## SKELETAL STATUS

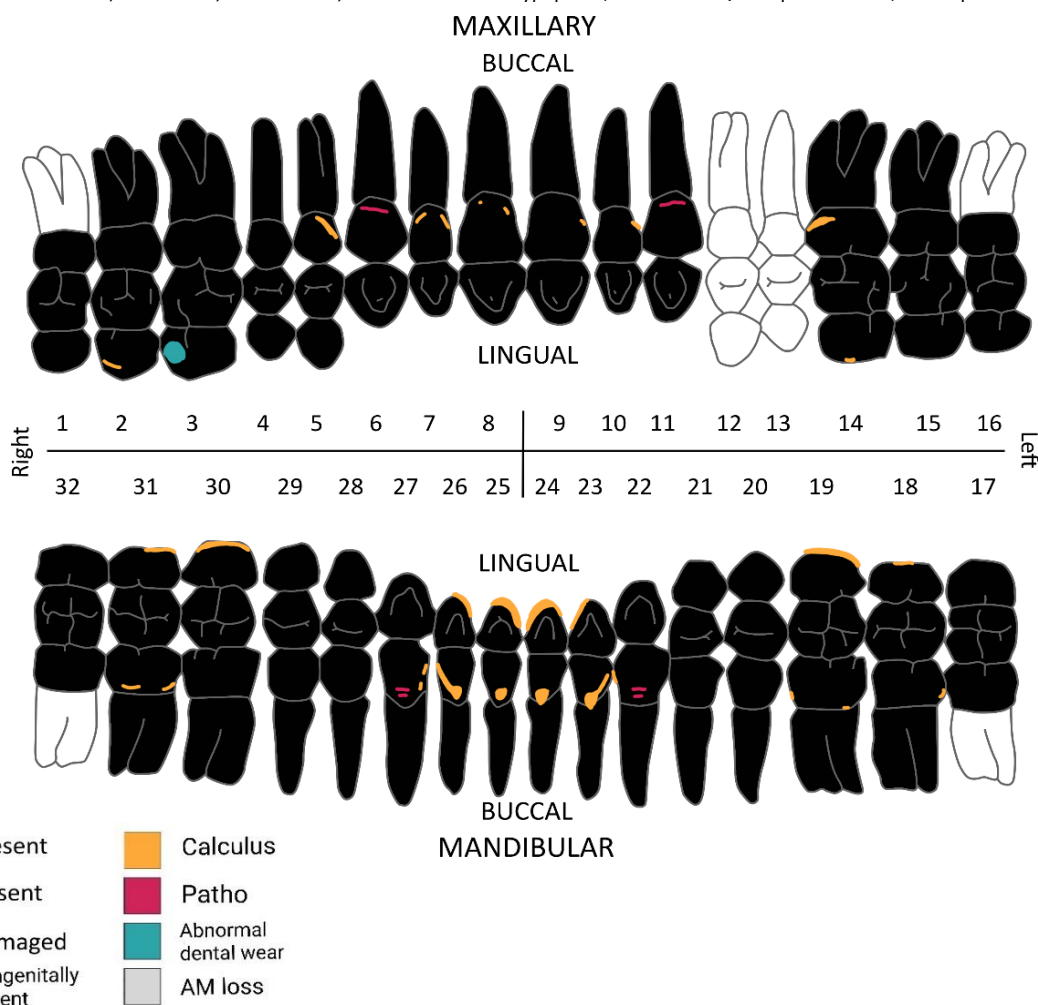


## DENTAL STATUS

MAXILLA							
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.
8	I1	P	Cc+	Cc+	P	I1	9
7	I2	P	Cc+, interruption groove	Cc+, interruption groove	P	I2	10
6	C	P	LEH, tuberculum dentale	LEH, tuberculum dentale	P	C	11
5	Pm1	P	Cc+		PM	Pm1	12
4	Pm2	P			PM	Pm2	13
3	M1	P	fractuur distale linguale lobe	Cc+	P	M1	14
2	M2	P	Cc+		P	M2	15
1	M3	E			E	M3	16
25	I1	P	Cc++	Cc++	P	I1	24
26	I2	P	Cc++	Cc++	P	I2	23
27	C	P	Cc+, LEH	LEH	P	C	22
28	Pm1	P			P	Pm1	21
29	Pm2	P			P	Pm2	20
30	M1	P	Cc+	Cc++	P	M1	19
31	M2	P	Cc++	Cc+	P	M2	18
32	M3	E			E	M3	17
MANDIBLE							

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch





## AGE ESTIMATION

Dental eruption and mineralization 1978; WEA 1980)	(Ubelaker	Dental age
		12,5-17,5

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Spheno occipital synchondrosis	< 18	11-18	> 11
Scapula	Acromiom	< 20	15-20	> 15
	Coraco-Glenoid	< 16	14-18	> 16
	Medial border	< 23	19-23	> 19
	Inferior angle	< 21	17-22	> 17
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Humerus	Proximal	< 20	14-21	>16
	Medial	< 18	13-18	> 13
	Distal	< 15	11-18	> 12
Ulna	Proximal	< 16	12-18	> 12
	Distal	< 20	15-20	> 15
Radius	Proximal	< 18	12-18	> 13
	Distal	< 19	14-20	> 15
Hand	MC's and phalanges	< 17	11-18	> 12
Sacrum	Auricular surface	< 21	15-21	> 17
	S1-S2 bodies	< 27	14-30	> 21
	S1-S2 alae	< 20	11-27	> 19
	S2-S5 bodies	< 20	12-28	> 19
	S2-S5 alae	< 16	10-21	> 13
Pelvis	Illiic crest	< 20	14-22	> 18
	Ant inf iliac spine	< 18	14-18	> 15
	Ischial tuberosity	< 18	14-20	> 16
Femur	Head	< 18	14-19	> 14
	Greater trochanter	< 18	14-19	> 14
	Lesser trochanter	< 18	16-19	> 14
	Distal	< 19	14-20	> 17
Tibia	Proximal	< 18	14-20	> 17
	Distal	< 18	14-18	> 15
Fibula	Proximal	< 19	14-20	> 15
	Distal	< 18	14-18	> 15
Foot	Calcaneus	< 20	10-20	> 10
	MT's and phalanges	< 17	11-16	> 11
Vertebrae	Annular Rings	< 21	14-23	> 18
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	Skeletal age		11-15	

Juvenile longe bone measurements (Schaefer et al. 2009)				
Bone	Measurement	L	R	Age
Clavicle	Length (mm)			
Scapula	Length (cm)			
	Width (cm)			
Humerus	Length (mm)			
Radius	Length (mm)			
Femur	Length (mm)	358	351	10-11
Femur	Length (mm) including epiphyses	392	386	10-11
Tibia	Length (mm)	285,5		10-11
Tibia	Length (mm) including epiphyses	316		9-10
	Skeletal age	10-11		



Overzichtsfoto individu in situ

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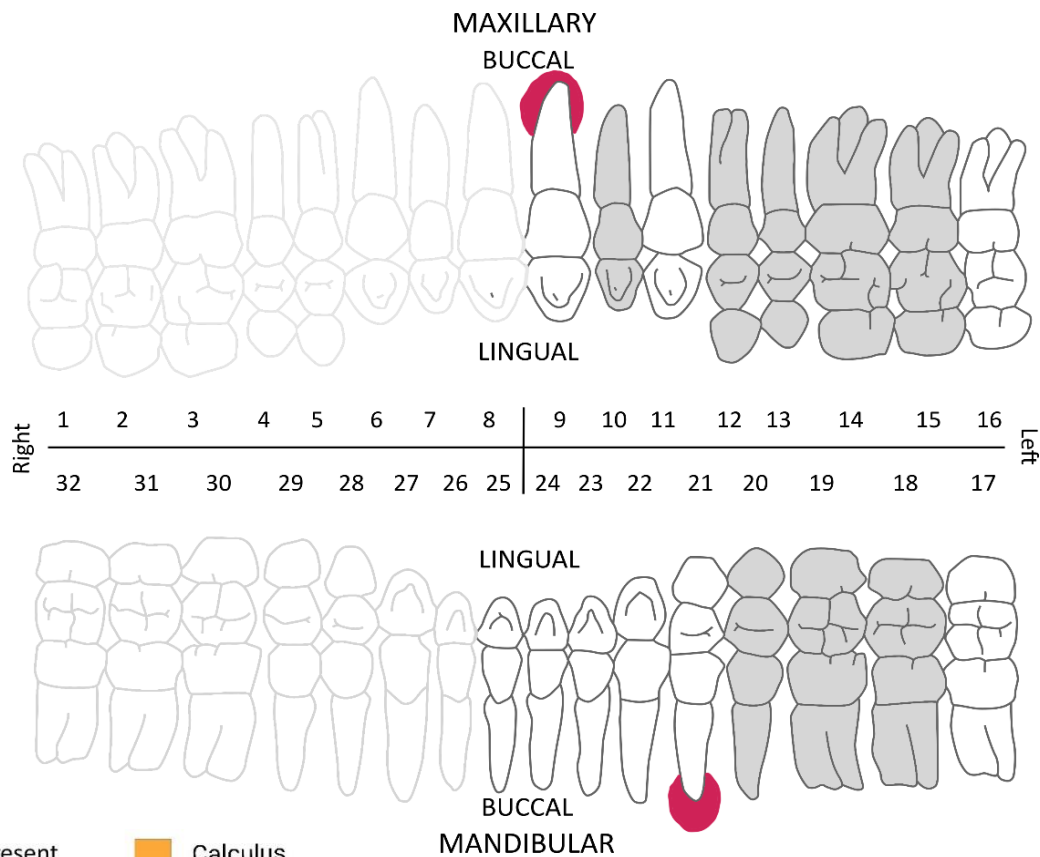


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	M		periap. Ab	PM	I1	9	
7	I2	M			AM	I2	10	
6	C	M			PM	C	11	
5	Pm1	M			AM	Pm1	12	
4	Pm2	M			AM	Pm2	13	
3	M1	M			AM	M1	14	
2	M2	M			AM	M2	15	
1	M3	M			?	M3	16	
25	I1	PM			PM	I1	24	
26	I2	M			PM	I2	23	
27	C	M			PM	C	22	
28	Pm1	M		periap. Ab	PM	Pm1	21	
29	Pm2	M			AM	Pm2	20	
30	M1	M			AM	M1	19	
31	M2	M			AM	M2	18	
32	M3	M			?	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

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	Present		Calculus
	Absent		Patho
	Damaged		Abnormal dental wear
	Congenitally absent		AM loss



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left mm	Sex	Right mm	Sex
Clavicle	Max length (M>150; F<138)	145,5	I		
Scapula	Max glenoid width (M>29; F<26)	/			
	Max glenoid length (M>36; F<34)	38,6	M		
Humerus	Max length (M>151; M?>149; F?<144; V<140)				
	Vertical head diameter (M>47; F<44.9)	41,7	F		
	Epicondylar breadth (M>60.1; F<60.1)	>61,3	M		
Femur	Max head diameter (M>48; F<43)	/			
	Epicondylar breadth (M>76; F<74)	80,2	M	78,7	M
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{6}{5} =$	<b>1,2</b>
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{9}{7} =$	<b>1,3</b>
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{68}{35} =$	<b>1,9</b>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	/			
Nuchal plane/crest	/			
Parietal & frontal bossing	/			
External occipital protuberance	/			
Frontal inclination	/			

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	M	2	3	6
Zygomatic process	/			
Supraorbital ridge	M		2	0
Zygomatic bone	/			
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	/			
Zygomatic process	/			
Supraorbital ridge	/			
Zygomatic bone	/			
Orbit shape & margin	/			

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	M?	1	3	3
Mental eminence	M?	1	2	2

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M	2	1	2
Inferior margin	M	2	1	2

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	/			
Inferior margin	/			

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	M	2	3	6
Pubic arc/angle	M	2	2	4
Arc composé	M	2	2	4
Innominate bone	M	2	2	4
Obturator foramen	M	2	2	4
Ischial body	M	2	2	4
Iliac crest	M	2	1	2
Iliac fossa	M	2	1	2
Pelvic inlet (midline)	M	2	1	2

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M	2	3	6
Pubic arc/angle	M	2	2	4
Arc composé	M	2	2	4
Innominate bone	M	2	2	4
Obturator foramen	M?	1	2	2
Ischial body	M	2	2	4
Iliac crest	M	2	1	2
Iliac fossa	M	2	1	2
Pelvic inlet (midline)	M	2	1	2

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc	M	M
Subpubic concavity	M	M
ischio-pubic ramus	M	M

**AGE ESTIMATION**

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left	61,2	12,2	34-86
	Right	61,2	12,2	34-86

Pubic symphysis (Todd 1970)	Side	Range
	Left	50+
	Right	50+

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	50-59
	Right	50-59

Auricular surface (B & C 2002)	Left	Traits	Right
	4	Transverse org.	3
	4	Surface texture	4
	3	Microporosity	3
	2	Macroporosity	2
	1	Apical changes	1
	14	Composite score	13
	29-88	Age range	29-88

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>22		

Sternal end (Falys & Prangle 2015), vanaf 30 jaar		
Marker	Left	Right
Topography	2	
Porosity	4	
Osteophyte formation	2	
Total	8	0
Age	47-85	

## STATURE

MALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$70,45 + 3,08 \times \text{hum}$	30,9	165,62			4,05
Radius	$79,01 + 3,78 \times \text{rad}$					4,32
Ulna	$74,05 + 3,70 \times \text{ulna}$					4,32
Femur	$61,41 + 2,38 \times \text{fem}$	44,5	167,32			3,27
Tibia	$78,62 + 2,52 \times \text{tib}$	36,55	170,73	36,5	170,60	3,27
Fibula	$71,78 + 2,68 \times \text{fib}$			35,1	165,85	3,29
Femur + tibia	$63,29 + 1,3 \times (\text{fem} + \text{tib})$	81,05	168,66			2,99



Overzichtsfoto individu in situ (rechts, links IND13)



## SKELETAL STATUS

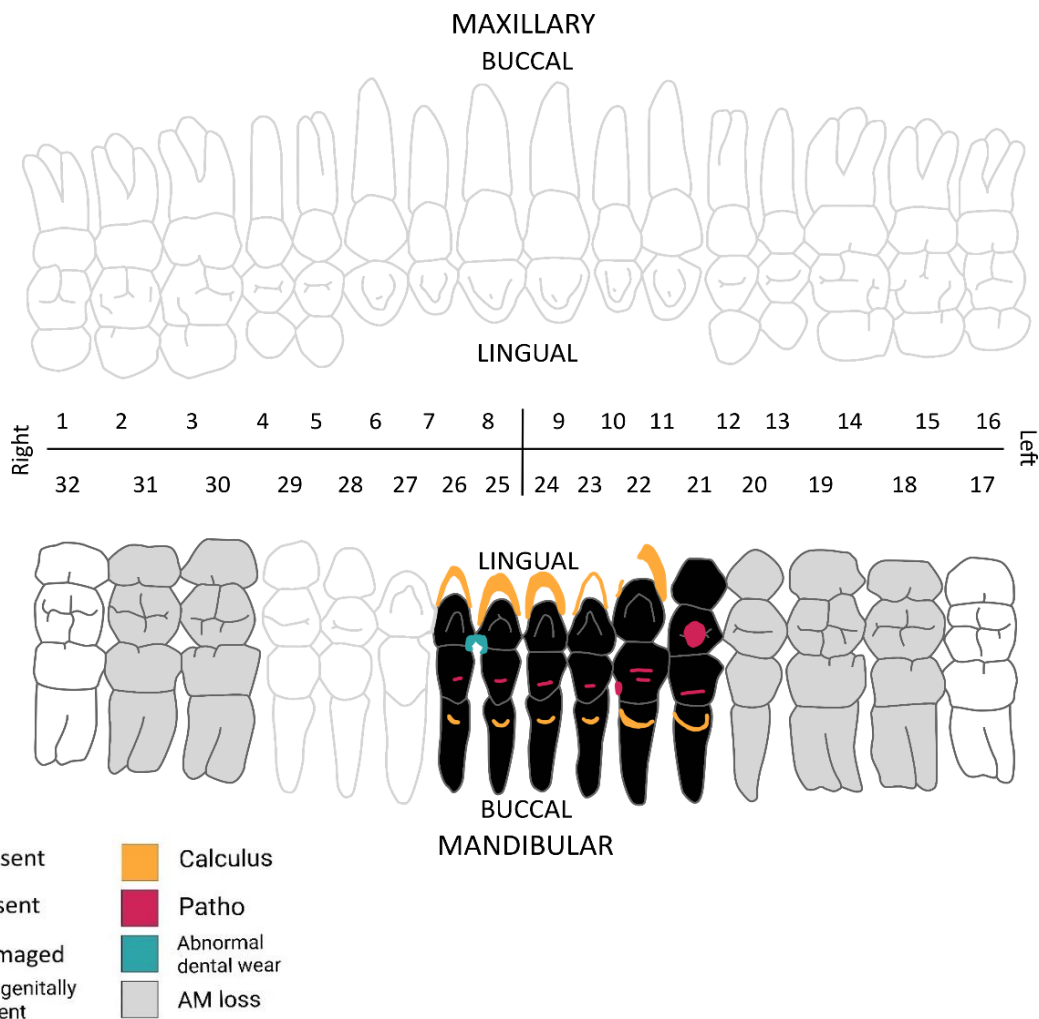


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	M			M	I1	9	
7	I2	M			M	I2	10	
6	C	M			M	C	11	
5	Pm1	M			M	Pm1	12	
4	Pm2	M			M	Pm2	13	
3	M1	M			M	M1	14	
2	M2	M			M	M2	15	
1	M3	M			M	M3	16	
25	I1	P	Cc++, LEH, fractuur distaal	Cc++, LEH	P	I1	24	
26	I2	P	Cc++, LEH, fractuur mesiaal	Cc+, LEH	P	I2	23	
27	C	M		Cc++, LEH, interpr. Ca	P	C	22	
28	Pm1	M		Cc+, occl. Ca, LEH	P	Pm1	21	
29	Pm2	M		B	AM	Pm2	20	
30	M1	AM	B	B	AM	M1	19	
31	M2	AM	B	B	AM	M2	18	
32	M3	?			?	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left mm	Sex	Right mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)	26	I	26,8	I
	Max glenoid length (M>36; F<34)	35,5	I		
Humerus	Max length (M>151; M?>149; F?<144; V<140)				
	Vertical head diameter (M>47; F<44.9)	40,5	F	39,3	F
	Epicondylar breadth (M>60.1; F<60.1)	52,4	F	54,2	F
Femur	Max head diameter (M>48; F<43)	43,4	F	42,3	F
	Epicondylar breadth (M>76; F<74)	71,1			
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$		=	$\frac{\quad}{\quad}$
WEA mandible	$\frac{\sum Wx}{\sum W}$	-8	=	-1,0
WEA os coxae	$\frac{\sum Wx}{\quad}$	-6	=	-0,2
		26		

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	F?	-1	3	-3
Mental eminence	F	-2	2	-4

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	F?	-1	1	-1

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	/			
Inferior margin	F?	-1	1	-1

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	I	0	3	0
Greater sciatic notch	F?	-1	3	-3
Pubic arc/angle	/			
Arc composé	F?	-1	2	-2
Innominate bone	/			
Obturator foramen	M?	1	2	2
Ischial body	F	2	2	4
Iliac crest	M?	1	1	1
Iliac fossa	F?	-1	1	-1
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F	-2	3	-6
Greater sciatic notch	F?	-1	3	-3
Pubic arc/angle	/			
Arc composé	F?	-1	2	-2
Innominate bone	/			
Obturator foramen	/			
Ischial body	F	2	2	4
Iliac crest	M?	1	1	1
Iliac fossa	F?	-1	1	-1
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		M
Subpubic concavity		F?
ischio-pubic ramus		M?



**AGE ESTIMATION**

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	60+
	Right	60+

Auricular surface (B & C 2002)	Left	Traits	Right
	5	Transverse org.	5
	3	Surface texture	4
	2	Microporosity	2
	2	Macroporosity	2
	2	Apical changes	3
	14	Composite score	16
	29-88	Age range	39-91

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>21		

Sternal end (Falys & Prangle 2015), vanaf 30 jaar		
Marker	Left	Right
Topography	2	2
Porosity	2	2
Osteophyte formation	2	2
Total	6	6
Age	41-88	41-88

## STATURE

FEMALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$57,97 + 3,36 \times \text{hum}$	30,95	161,96			4,45
Radius	$54,93 + 4,74 \times \text{rad}$					4,24
Ulna	$57,76 + 4,27 \times \text{ulna}$					4,3
Femur	$54,10 + 2,47 \times \text{fem}$	41,65	156,98			3,72
Tibia	$61,53 + 2,90 \times \text{tib}$					3,66
Fibula	$59,61 + 2,93 \times \text{fib}$					3,57
Femur + tibia	$53,2 + 1,39 \times (\text{fem} + \text{tib})$					3,55

Patho



Overzichtsfoto individu in situ



## SKELETAL STATUS



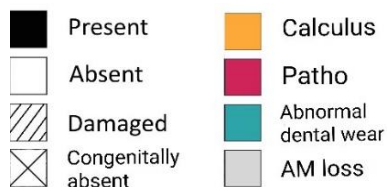
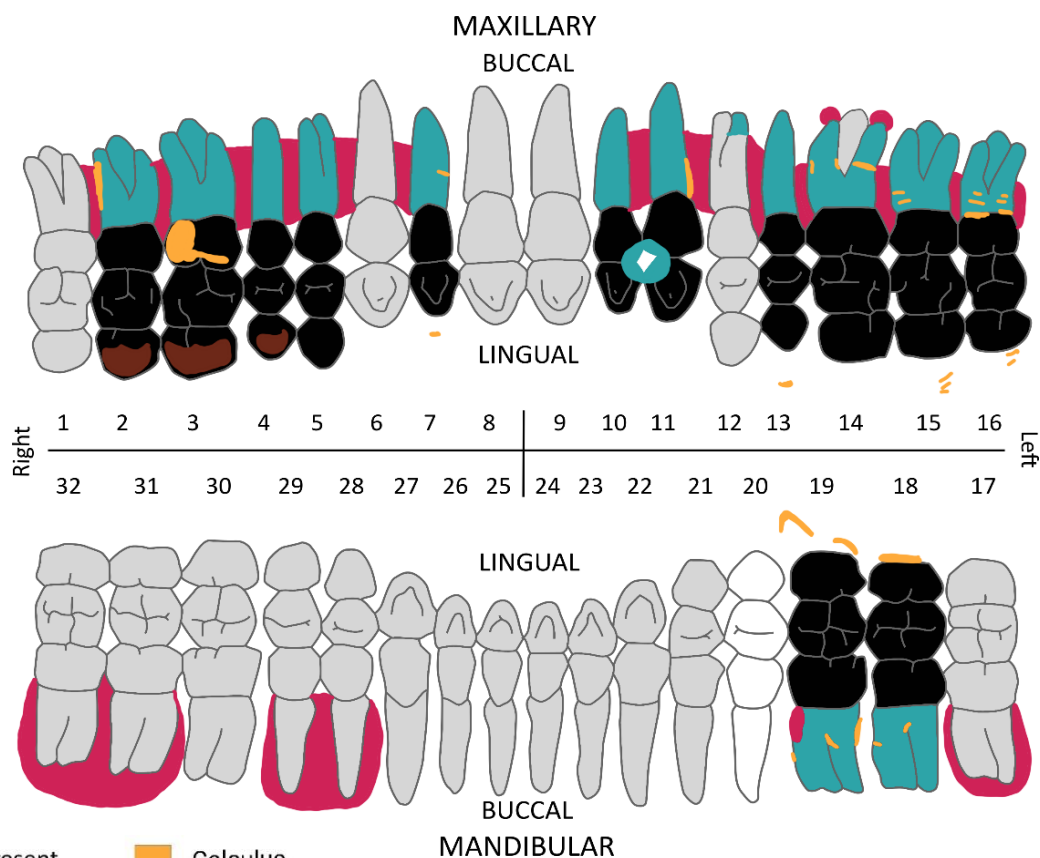


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	AM	B	B	AM	I1	9	
7	I2	P	koperverkl., Cc+	koperverkl., slijtage pijpgat?	P	I2	10	
6	C	AM	B	koperverkl., slijtage pijpgat?, Cc+	P	C	11	
5	Pm1	P	koperverkl., Cc+	B, enkel apex wortel bewaard	AM	Pm1	12	
4	Pm2	P	koperverkl., rokersaanslag?	koperverkl., Cc+	P	Pm2	13	
3	M1	P	koperverkl., Cc++, rokersaanslag?	erverkl., periap. Ab, Cc+, ling. wortel AM	P	M1	14	
2	M2	P	koperverkl., Cc+, rokersaanslag?	koperverkl. Cc+	P	M2	15	
1	M3	AM	B	koperverkl. Cc++	P	M3	16	
25	I1	AM	B	B	AM	I1	24	
26	I2	AM	B	B	AM	I2	23	
27	C	AM	B	B	AM	C	22	
28	Pm1	AM	B, period. Ab	B	AM	Pm1	21	
29	Pm2	AM	B, period. Ab		PM	Pm2	20	
30	M1	AM	B	koperverkleuring, Cc+, interprox. Ca	P	M1	19	
31	M2	AM	B, period. Ab	koperverkleuring, Cc+	P	M2	18	
32	M3	AM	B, period. Ab	B, period. Ab	AM	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)	137,5	F	133,5	F
Scapula	Max glenoid width (M>29; F<26)	28,1	I	27,3	I
	Max glenoid length (M>36; F<34)	37,7	M	39,4	M
Humerus	Max length (M>151; M?>149; F?<144; V<140)	150,5	M?	151	M?
	Vertical head diameter (M>47; F<44.9)	47,6	M	47,9	M
	Epicondylar breadth (M>60.1; F<60.1)	63	M	63,3	M
Femur	Max head diameter (M>48; F<43)	47,1	I	47,3	I
	Epicondylar breadth (M>76; F<74)	80,3	M	82	M
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{44}{33} =$	<b>1,3</b>
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{8}{9} =$	<b>0,9</b>
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{54}{38} =$	<b>1,4</b>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	M	2	3	6
Nuchal plane/crest	M?	1	3	3
Parietal & frontal bossing	F?	-1	2	-2
External occipital protuberance	M	2	2	4
Frontal inclination	F?	-1	1	-1

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	M?	1	3	3
Zygomatic process	M	2	3	6
Supraorbital ridge	M?	1	2	2
Zygomatic bone	M	2	2	4
Orbit shape & margin	M	2	1	2

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	M?	1	3	3
Zygomatic process	M	2	3	6
Supraorbital ridge	M?	1	2	2
Zygomatic bone	M	2	2	4
Orbit shape & margin	M	2	1	2

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	M?	1	3	3
Mental eminence	I	0	2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	M?	1	1	1

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M	2	1	2
Inferior margin	M?	1	1	1

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F?	-1	3	-3
Greater sciatic notch	M	2	3	6
Pubic arc/angle	M	2	2	4
Arc composé	M	2	2	4
Innominate bone	M?	1	2	2
Obturator foramen	M	2	2	4
Ischial body	M	2	2	4
Iliac crest	M?	1	1	1
Iliac fossa	M?	1	1	1
Pelvic inlet (midline)	M?	1	1	1

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M?	1	3	3
Greater sciatic notch	M	2	3	6
Pubic arc/angle	M	2	2	4
Arc composé	M	2	2	4
Innominate bone	M?	1	2	2
Obturator foramen	M	2	2	4
Ischial body	M	2	2	4
Iliac crest	M?	1	1	1
Iliac fossa	M?	1	1	1
Pelvic inlet (midline)	M?	1	1	1

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc	M	M
Subpubic concavity	M?	M?
ischio-pubic ramus	M?	M?

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left	28,7	6,5	21-46
	Right	28,7	6,5	21-46

Pubic symphysis (Todd 1970)	Side	Range
	Left	30-35
	Right	30-35

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	30-34
	Right	30-34

Auricular surface (B & C 2002)	Left	Traits	Right
	2	Transverse org.	2
	3	Surface texture	3
	1	Microporosity	1
	1	Macroporosity	1
	1	Apical changes	1
	8	Composite score	8
	21-38	Age range	21-38

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)
	closed	>21

Tooth wear (Brothwell 1981)	Age
	25-45



Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		22-40		

Sternal end (Falys & Prangle 2015), vanaf 30 jaar		
Marker	Left	Right
Topography	2	2
Porosity	1	1
Osteophyte formation	1	1
Total	4	4
Age	36-61	36-61

## STATURE

MALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$70,45 + 3,08 \times \text{hum}$	32,5	170,55	32,9	171,78	4,05
Radius	$79,01 + 3,78 \times \text{rad}$					4,32
Ulna	$74,05 + 3,70 \times \text{ulna}$					4,32
Femur	$61,41 + 2,38 \times \text{fem}$	43,9	165,89	43,4	164,70	3,27
Tibia	$78,62 + 2,52 \times \text{tib}$	37,5	173,12	37,7	173,62	3,27
Fibula	$71,78 + 2,68 \times \text{fib}$					3,29
Femur + tibia	$63,29 + 1,3 \times (\text{fem} + \text{tib})$	81,4	169,11	81,1	168,72	2,99



Overzichtsfoto individu in situ

## SKELETAL STATUS



## DENTAL STATUS

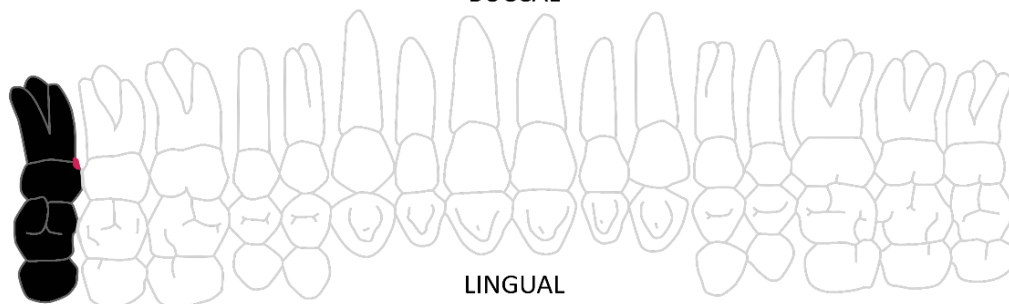
MAXILLA							
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.
8	I1	M			M	I1	9
7	I2	M			M	I2	10
6	C	M			M	C	11
5	Pm1	M			M	Pm1	12
4	Pm2	M			M	Pm2	13
3	M1	M			M	M1	14
2	M2	M			M	M2	15
1	M3	P	Interprox. Ca		M	M3	16
25	I1	P	Cc++	Cc++	P	I1	24
26	I2	P	Cc++	Cc++	P	I2	23
27	C	P	Cc++, inversion	Cc++	P	C	22
28	Pm1	P	Cc++, interprox. Ca	Cc++	P	Pm1	21
29	Pm2	AM	B	Cc++	P	Pm2	20
30	M1	AM	B	B	AM	M1	19
31	M2	P		B	AM	M2	18
32	M3	?			PM	M3	17
MANDIBLE							

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch

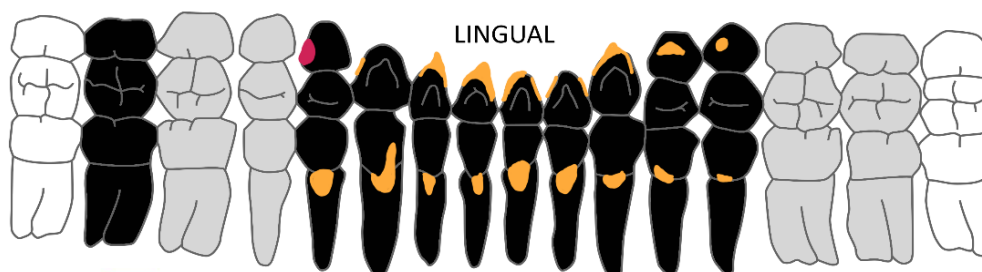
### MAXILLARY

#### BUCCAL



#### LINGUAL

Right 1 2 3 4 5 6 7 8 | 9 10 11 12 13 14 15 16 Left  
32 31 30 29 28 27 26 25 | 24 23 22 21 20 19 18 17



#### LINGUAL

#### BUCCAL MANDIBULAR

- Present
- Absent
- Damaged
- Congenitally absent
- Calculus
- Patho
- Abnormal dental wear
- AM loss



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)				
	Max glenoid length (M>36; F<34)				
Humerus	Max length (M>151; M?>149; F?<144; V<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)	62,2	M	62,3	M
Femur	Max head diameter (M>48; F<43)			48,4	M
	Epicondylar breadth (M>76; F<74)			78,6	M
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{7}{8} =$	<b>0,9</b>
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{7}{8} =$	<b>0,9</b>
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{22}{18} =$	<b>1,2</b>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	/			
Nuchal plane/crest	/			
Parietal & frontal bossing	/			
External occipital protuberance	F?	-1	2	-2
Frontal inclination	M?	1	1	1

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	/			
Zygomatic process	/			
Supraorbital ridge	/			
Zygomatic bone	/			
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	M	2	3	6
Zygomatic process	/			
Supraorbital ridge	M?	1	2	2
Zygomatic bone	/			
Orbit shape & margin	/			

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	M?		3	0
Mental eminence	M	2	2	4

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	M?	1	1	1

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	/			
Inferior margin	M?	1	1	1

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M	2	3	6
Pubic arc/angle	M	2	2	4
Arc composé	F?	-1	2	-2
Innominate bone	M	2	2	4
Obturator foramen	M?	1	2	2
Ischial body	M?	1	2	2
Iliac crest	F?	-1	1	-1
Iliac fossa	M?	1	1	1
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		M
Subpubic concavity		M
ischio-pubic ramus		M

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	30-34

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	3
		Surface texture	2
		Microporosity	1
		Macroporosity	1
		Apical changes	1
	0	Composite score	8
		Age range	21-38

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Tooth wear (Brothwell 1981)	Age
	25-35

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		22-34		

Sternal end (Falys & Prangle 2015), vanaf 30 jaar		
Marker	Left	Right
Topography		2
Porosity		2
Osteophyte formation		1
Total	0	5
Age		36-61

## STATURE

MALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$70,45 + 3,08 \times \text{hum}$		70,45		70,45	4,05
Radius	$79,01 + 3,78 \times \text{rad}$		79,01		79,01	4,32
Ulna	$74,05 + 3,70 \times \text{ulna}$		74,05		74,05	4,32
Femur	$61,41 + 2,38 \times \text{fem}$		61,41		61,41	3,27
Tibia	$78,62 + 2,52 \times \text{tib}$		78,62		78,62	3,27
Fibula	$71,78 + 2,68 \times \text{fib}$		71,78		71,78	3,29
Femur + tibia	$63,29 + 1,3 \times (\text{fem} + \text{tib})$	0	63,29	0	63,29	2,99

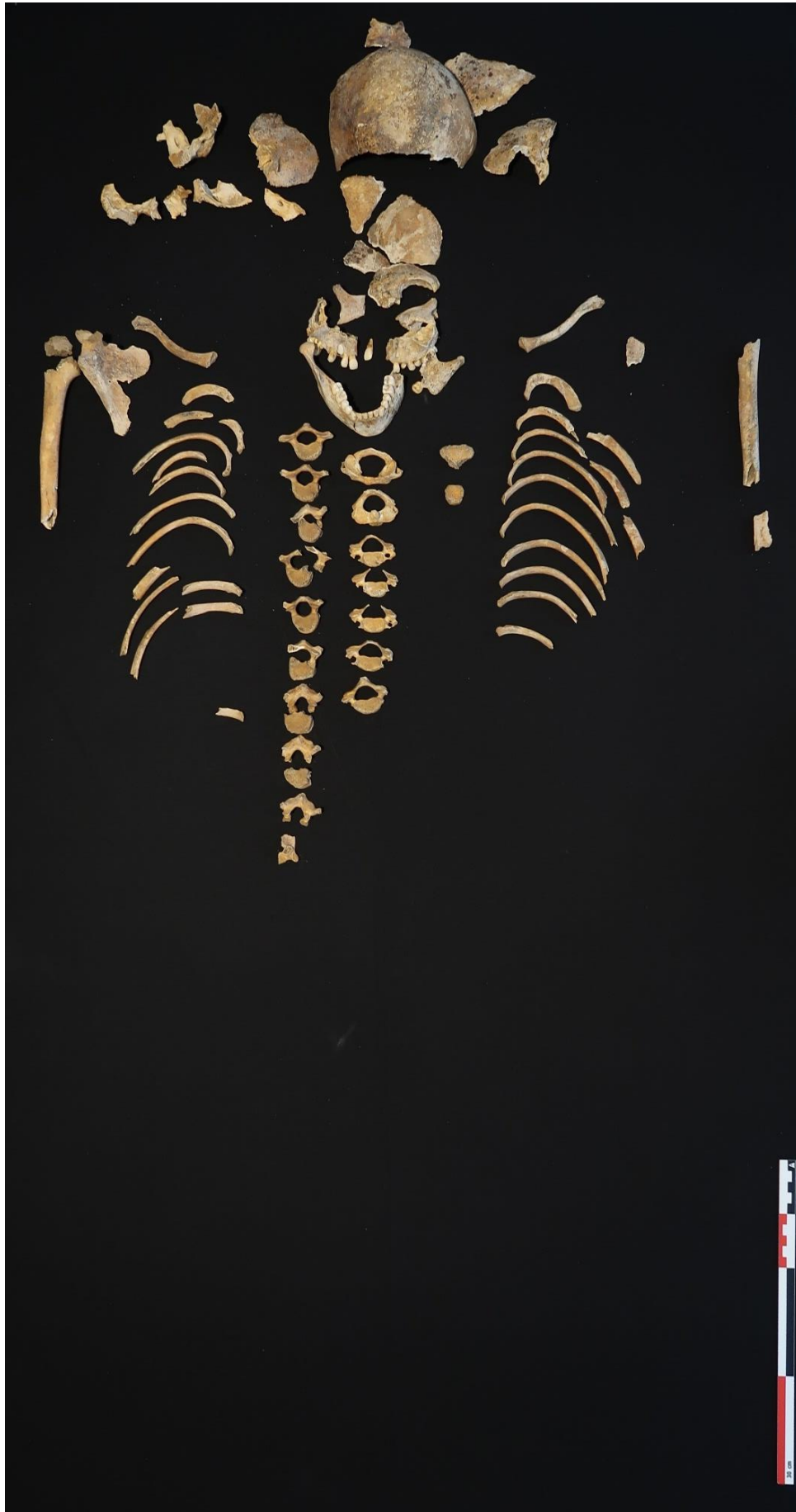
FEMALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$57,97 + 3,36 \times \text{hum}$		57,97		57,97	4,45
Radius	$54,93 + 4,74 \times \text{rad}$		54,93		54,93	4,24
Ulna	$57,76 + 4,27 \times \text{ulna}$		57,76		57,76	4,3
Femur	$54,10 + 2,47 \times \text{fem}$		54,10		54,10	3,72
Tibia	$61,53 + 2,90 \times \text{tib}$		61,53		61,53	3,66
Fibula	$59,61 + 2,93 \times \text{fib}$		59,61		59,61	3,57
Femur + tibia	$53,2 + 1,39 \times (\text{fem} + \text{tib})$	0	53,20	0	53,20	3,55





Overzichtsfoto individu in situ (links, IND6 rechts)

## SKELETAL STATUS



# DENTAL STATUS

## PERMANENT DENTITION

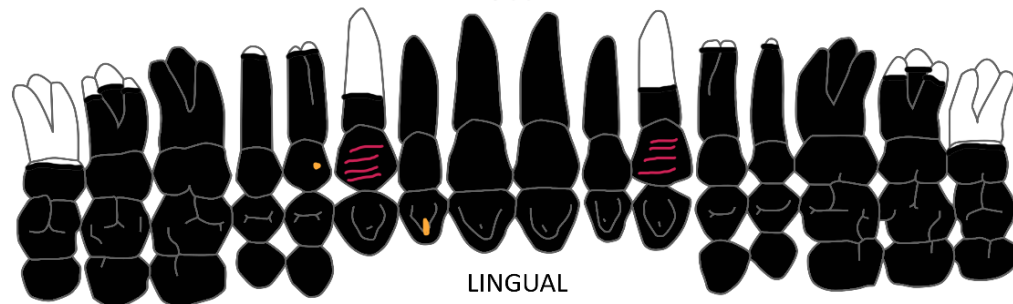
MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	P			P	I1	9	
7	I2	P	Cc+		P	I2	10	
6	C	E	LEH	LEH	E	C	11	
5	Pm1	E	Cc+		E	Pm1	12	
4	Pm2	E			E	Pm2	13	
3	M1	P			P	M1	14	
2	M2	E			E	M2	15	
1	M3	E			E	M3	16	
25	I1	P	Cc++	Cc++	P	I1	24	
26	I2	P	Cc++	Cc++	P	I2	23	
27	C	E	Cc+, LEH	LEH	E	C	22	
28	Pm1	E			E	Pm1	21	
29	Pm2	E			E	Pm2	20	
30	M1	P			P	M1	19	
31	M2	E			E	M2	18	
32	M3	E			E	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch

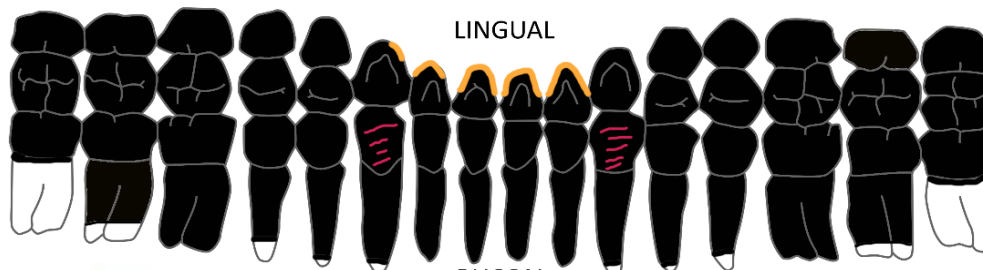
### MAXILLARY

#### BUCCAL



#### LINGUAL

Right 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 Left  
32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17



#### LINGUAL

#### BUCCAL

### MANDIBULAR

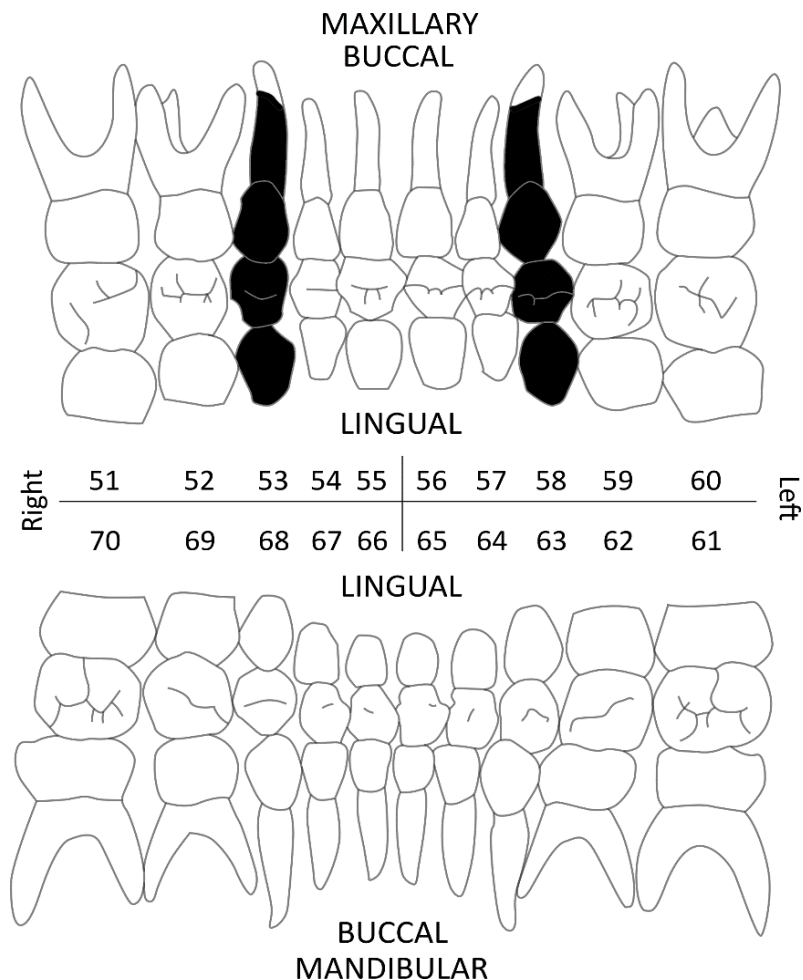
- Present
- Absent
- Damaged
- Congenitally absent
- Calculus
- Patho
- Abnormal dental wear
- AM loss









## DECIDUOUS DENTITION

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
55	di1	AM	gewisseld	gewisseld	AM	di1	56	
54	di2	AM	gewisseld	gewisseld	AM	di2	57	
53	dc	P			P	dc	58	
52	dm1	AM	gewisseld	gewisseld	AM	dm1	59	
51	dm2	AM	gewisseld	gewisseld	AM	dm2	60	
66	di1	AM	gewisseld	gewisseld	AM	di1	65	
67	di2	AM	gewisseld	gewisseld	AM	di2	64	
68	dc	AM	gewisseld	gewisseld	AM	dc	63	
69	dm1	AM	gewisseld	gewisseld	AM	dm1	62	
70	dm2	AM	gewisseld	gewisseld	AM	dm2	61	
MANDIBLE								

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**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



	Present		Calculus
	Absent		Patho
	Damaged		Abnormal dental wear
	Congenitally absent		AM loss



## AGE ESTIMATION

Dental eruption and mineralization (Ubelaker 1978; WEA 1980)	Dental age
	8,5-13,5

Skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Frontal	Mesotopic suture	< 4	0-4	> 0
Occipital	Pars laterales to pars basilaris	< 4	2-4	> 2
	Basilar part to occipital bone	< 7	5-7	> 5
Mandible	Mandibular symphysis	< 8	3 mth-8	> 3 mths
Vertebrae	Neural arches of C3-C5	< 2	6 mth-2	> 6 mths
	Neural arches of C2	< 4	3-5	> 3
	Neural arches of C1	< 5	4-5	> 4
	Neural arches to centrum (C3-L5)	< 5	2-5	> 2
	Dens to neural arch	< 4	3-4	> 3
	Centrum to neural arch (C2)	< 6	4-5	> 4
	Neural arch to anterior bar (C1)	< 5	4-5	> 4
Sacrum	lateral element to neural arch	< 5	2-5	> 2
	Wing to centra	< 6	2-6	> 2
Pelvis	Ischiopubic ramus	< 8	5-8	> 5
Humerus	Greater and lesser tubercles to head	< 6	2-6	> 2
Skeletal age		>5		

Juvenile long bone measurements (Schaefer et al. 2009)				
Bone	Measurement	L	R	Age
Clavicle	Length (mm)		>89,5	>8
Scapula	Length (cm)			
	Width (cm)			
Humerus	Length (mm)			
Radius	Length (mm)			
Ulna	Length (mm)			
Femur	Length (mm)			
Tibia	Length (mm)			
Fibula	Length (mm)			
Skeletal age		>8		

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)

Bone	Site	Open	Partial	Closed
Skull	Spheno occipital synchondrosis	< 18	11-18	> 11
Scapula	Acromiom	< 20	15-20	> 15
	Coraco-Glenoid	< 16	14-18	> 16
	Medial border	< 23	19-23	> 19
	Inferior angle	< 21	17-22	> 17
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Humerus	Proximal	< 20	14-21	> 16
	Medial	< 18	13-18	> 13
	Distal	< 15	11-18	> 12
Ulna	Proximal	< 16	12-18	> 12
	Distal	< 20	15-20	> 15
Radius	Proximal	< 18	12-18	> 13
	Distal	< 19	14-20	> 15
Hand	MC's and phalanges	< 17	11-18	> 12
Sacrum	Auricular surface	< 21	15-21	> 17
	S1-S2 bodies	< 27	14-30	> 21
	S1-S2 alae	< 20	11-27	> 19
	S2-S5 bodies	< 20	12-28	> 19
	S2-S5 alae	< 16	10-21	> 13
Pelvis	Iliac crest	< 20	14-22	> 18
	Ant inf iliac spine	< 18	14-18	> 15
	Ischial tuberosity	< 18	14-20	> 16
Femur	Head	< 18	14-19	> 14
	Greater trochanter	< 18	14-19	> 14
	Lesser trochanter	< 18	16-19	> 14
	Distal	< 19	14-20	> 17
Tibia	Proximal	< 18	14-20	> 17
	Distal	< 18	14-18	> 15
Fibula	Proximal	< 19	14-20	> 15
	Distal	< 18	14-18	> 15
Foot	Calcaneus	< 20	10-20	> 10
	MT's and phalanges	< 17	11-16	> 11
Vertebrae	Annular Rings	< 21	14-23	> 18
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
Skeletal age		<16		



Overzichtsfoto individu in situ

## SKELETAL STATUS

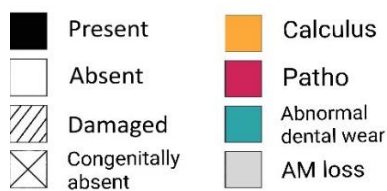
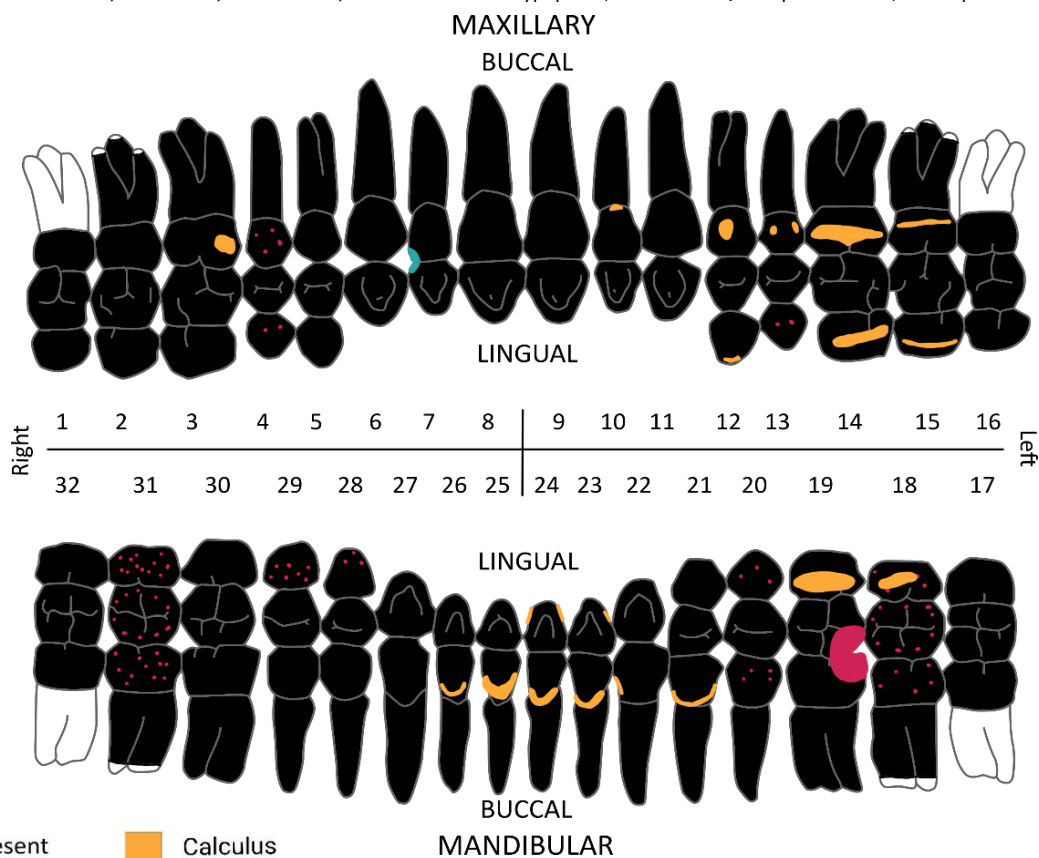


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	P			P	I1	9	
7	I2	P	fracture	Cc+	P	I2	10	
6	C	P			P	C	11	
5	Pm1	P		Cc++	P	Pm1	12	
4	Pm2	P	pitting H	Cc+, pitting H	P	Pm2	13	
3	M1	P	Cc++	Cc++	P	M1	14	
2	M2	E		Cc++	E	M2	15	
1	M3	E			E	M3	16	
25	I1	P	Cc++	Cc++	P	I1	24	
26	I2	P	Cc++	Cc++	P	I2	23	
27	C	P		Cc+	P	C	22	
28	Pm1	P	pitting H	Cc++	P	Pm1	21	
29	Pm2	P	pitting H	pitting H	P	Pm2	20	
30	M1	P		Cc++, interprox. Ca	P	M1	19	
31	M2	E	pitting H	pitting H, Cc++	E	M2	18	
32	M3	E			E	M3	17	
MANDIBLE								

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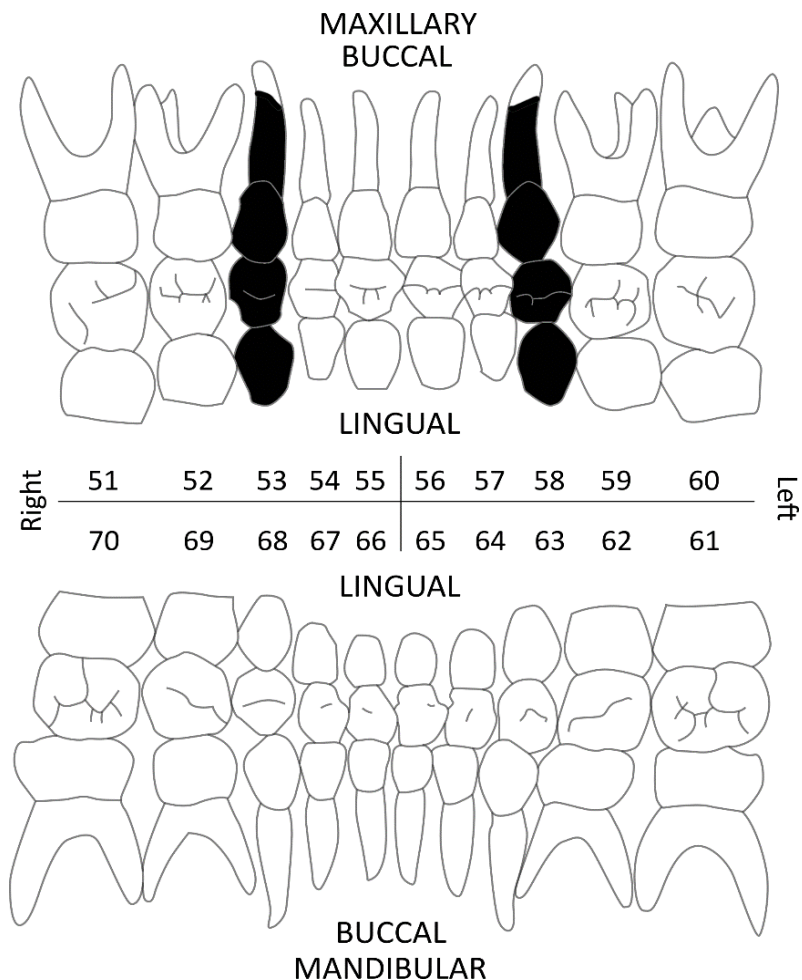


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Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
55	di1	AM	gewisseld	gewisseld	AM	di1	56	
54	di2	AM	gewisseld	gewisseld	AM	di2	57	
53	dc	P			P	dc	58	
52	dm1	AM	gewisseld	gewisseld	AM	dm1	59	
51	dm2	AM	gewisseld	gewisseld	AM	dm2	60	
66	di1	AM	gewisseld	gewisseld	AM	di1	65	
67	di2	AM	gewisseld	gewisseld	AM	di2	64	
68	dc	AM	gewisseld	gewisseld	AM	dc	63	
69	dm1	AM	gewisseld	gewisseld	AM	dm1	62	
70	dm2	AM	gewisseld	gewisseld	AM	dm2	61	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

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	Present		Calculus
	Absent		Patho
	Damaged		Abnormal dental wear
	Congenitally absent		AM loss

## AGE ESTIMATION

Dental eruption and mineralization (Ubelaker 1978; WEA 1980)	Dental age
	8,5-13,5

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
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	Inferior angle	< 21	17-22	> 17
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Humerus	Proximal	< 20	14-21	> 16
	Medial	< 18	13-18	> 13
	Distal	< 15	11-18	> 12
Ulna	Proximal	< 16	12-18	> 12
	Distal	< 20	15-20	> 15
Radius	Proximal	< 18	12-18	> 13
	Distal	< 19	14-20	> 15
Hand	MC's and phalanges	< 17	11-18	> 12
Sacrum	Auricular surface	< 21	15-21	> 17
	S1-S2 bodies	< 27	14-30	> 21
	S1-S2 alae	< 20	11-27	> 19
	S2-S5 bodies	< 20	12-28	> 19
	S2-S5 alae	< 16	10-21	> 13
Pelvis	Illiic crest	< 20	14-22	> 18
	Ant inf iliac spine	< 18	14-18	> 15
	Ischial tuberosity	< 18	14-20	> 16
	ischiopubic ramus	< 16	5-16	> 5
Femur	Head	< 18	14-19	> 14
	Greater trochanter	< 18	14-19	> 14
	Lesser trochanter	< 18	16-19	> 14
	Distal	< 19	14-20	> 17
Tibia	Proximal	< 18	14-20	> 17
	Distal	< 18	14-18	> 15
Fibula	Proximal	< 19	14-20	> 15
	Distal	< 18	14-18	> 15
Foot	Calcaneus	< 20	10-20	> 10
	MT's and phalanges	< 17	11-16	> 11
Vertebrae	Annular Rings	< 21	14-23	> 18
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	4-15	> 4
Skeletal age		5-15		

Juvenile longe bone measurements (Schaefer et al. 2009)				
Bone	Measurement	L	R	Age
Clavicle	Length (mm)	108		12-13
Scapula	Length (cm)			
	Width (cm)			
Humerus	Length (mm)	230		9-10
Radius	Length (mm)	180,5		10-11
Ulna	Length (mm)	201,5		10-11
Femur	Length (mm)	340,5		9-10
Tibia	Length (mm)	278		9-10
Fibula	Length (mm)			
	Skeletal age	9-11		



Overzichtsfoto individu in situ



## SKELETAL STATUS



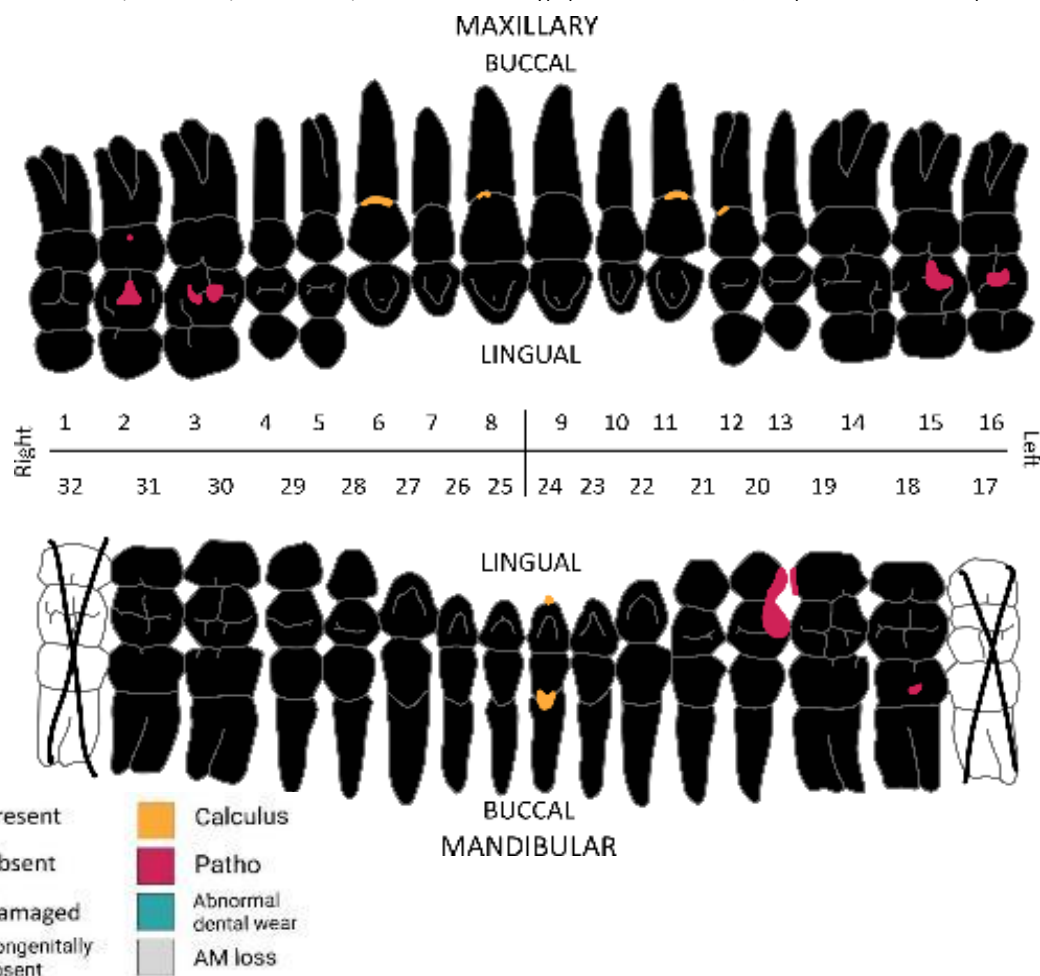


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	P	Cc+		P	I1	9	
7	I2	P			P	I2	10	
6	C	P	Cc+	Cc+	P	C	11	
5	Pm1	P		Cc+	P	Pm1	12	
4	Pm2	P			P	Pm2	13	
3	M1	P	2 occl. Ca	occl. Ca	P	M1	14	
2	M2	P	occl. en bucc. Ca	occl. Ca	P	M2	15	
1	M3	P			P	M3	16	
25	I1	P		Cc++	P	I1	24	
26	I2	P			P	I2	23	
27	C	P			P	C	22	
28	Pm1	P			P	Pm1	21	
29	Pm2	P		interprox. Ca	P	Pm2	20	
30	M1	P		interprox. Ca	P	M1	19	
31	M2	P		bucc. Ca	P	M2	18	
32	M3	C			C	M3	17	
MANDIBLE								

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## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)	130,5	F	139,5	I
Scapula	Max glenoid width (M>29; F<26)	23,4	F		
	Max glenoid length (M>36; F<34)	33,2	F	32	F
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)	41,2	F	40,1	F
	Epicondylar breadth (M>60.1; F<60.1)	51,1	F	53,3	F
Femur	Max head diameter (M>48; F<43)			41,5	F
	Epicondylar breadth (M>76; F<74)			71,6	F
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{9}{18} =$	<b>0,5</b>
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{7}{9} =$	<b>0,8</b>
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{-25}{17} =$	<b>-1,5</b>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	M?	1	3	3
Nuchal plane/crest	/			
Parietal & frontal bossing	/			
External occipital protuberance	/			
Frontal inclination	/			

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	M?	1	3	3
Zygomatic process	M	2	3	6
Supraorbital ridge	/			
Zygomatic bone	F?	-1	2	-2
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	M?	1	3	3
Zygomatic process	/			
Supraorbital ridge	F?	-1	2	-2
Zygomatic bone	F?	-1	2	-2
Orbit shape & margin	/			

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	M?	1	3	3
Mental eminence	F?	-1	2	-2

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	M	2	1	2

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	M	2	1	2

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F?	-1	3	-3
Greater sciatic notch	F?	-1	3	-3
Pubic arc/angle	F	-2	2	-4
Arc composé	F	-2	2	-4
Innominate bone	F?	-1	2	-2
Obturator foramen	/			
Ischial body	F	-2	2	-4
Iliac crest	F?	-1	1	-1
Iliac fossa	F	-2	1	-2
Pelvic inlet (midline)	F	-2	1	-2

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc	F	
Subpubic concavity	F?	
ischio-pubic ramus	F	

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right	38,2	10,9	26-70

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	30-35

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	30-34

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	4
		Surface texture	2
		Microporosity	1
		Macroporosity	1
		Apical changes	1
	0	Composite score	9
		Age range	16-65

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)
	closed	>21

Tooth wear (Brothwell 1981)	Age
	25-35

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>22		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		
Porosity		
Osteophyte formation		
Total	0	0
Age		

## STATURE

FEMALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$57,97 + 3,36 \times \text{hum}$	30,5	160,45	31,1	162,47	4,45
Radius	$54,93 + 4,74 \times \text{rad}$					4,24
Ulna	$57,76 + 4,27 \times \text{ulna}$					4,3
Femur	$54,10 + 2,47 \times \text{fem}$			43,3	161,05	3,72
Tibia	$61,53 + 2,90 \times \text{tib}$					3,66
Fibula	$59,61 + 2,93 \times \text{fib}$					3,57
Femur + tibia	$53,2 + 1,39 \times (\text{fem} + \text{tib})$					3,55





Overzichtsfoto individu in situ

## SKELETAL STATUS





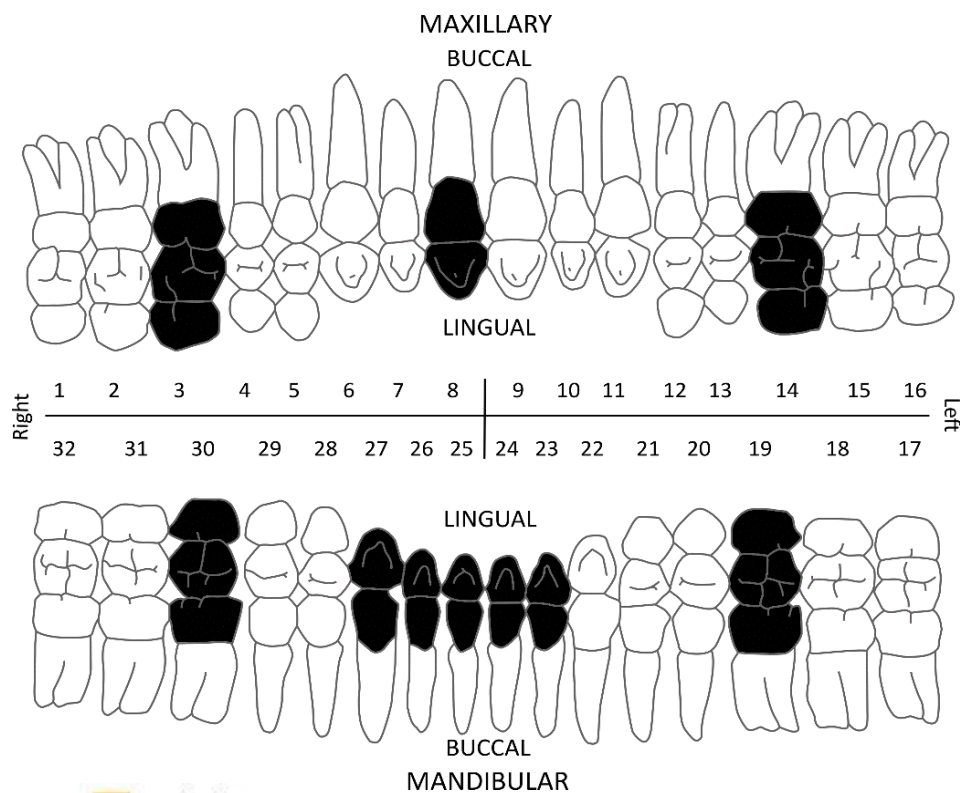
# DENTAL STATUS

## PERMANENT DENTITION

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	U		Niet zichtbaar		I1	9	
7	I2		Niet zichtbaar	Niet zichtbaar		I2	10	
6	C		Niet zichtbaar	Niet zichtbaar		C	11	
5	Pm1		Niet zichtbaar	Niet zichtbaar		Pm1	12	
4	Pm2		Niet zichtbaar	Niet zichtbaar		Pm2	13	
3	M1	E			E	M1	14	
2	M2	PM			PM	M2	15	
1	M3					M3	16	
25	I1	U			U	I1	24	
26	I2	U			U	I2	23	
27	C	U		Niet zichtbaar		C	22	
28	Pm1			Niet zichtbaar		Pm1	21	
29	Pm2			Niet zichtbaar		Pm2	20	
30	M1	E			E	M1	19	
31	M2	PM			PM	M2	18	
32	M3					M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch

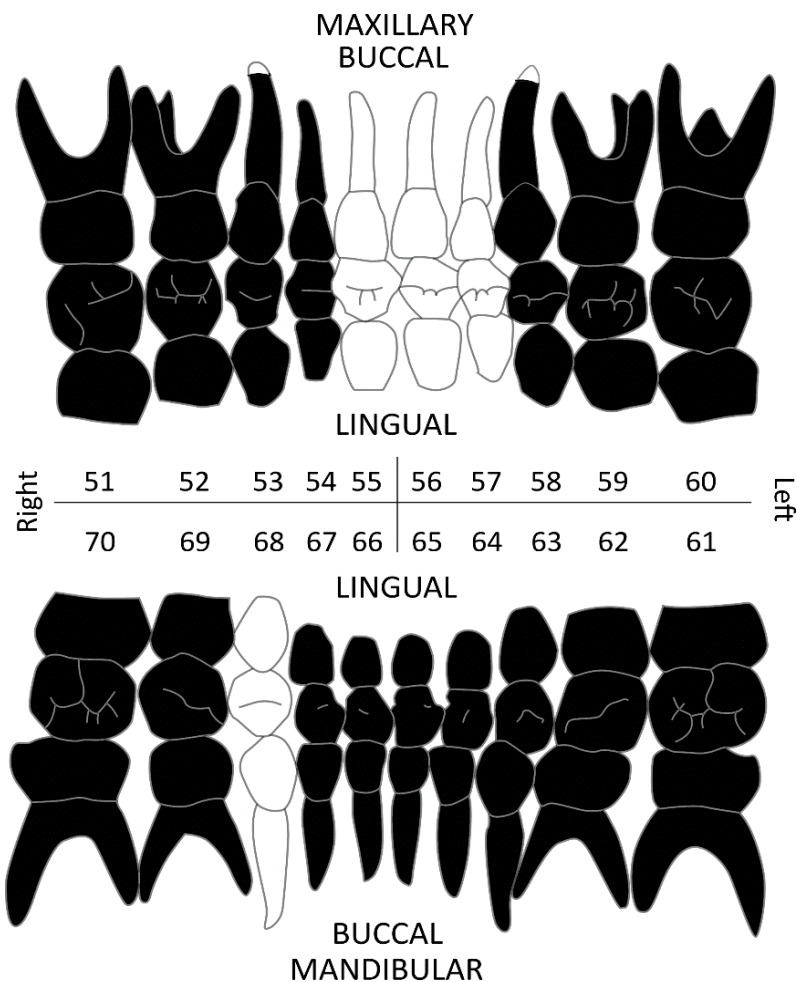


## DECIDUOUS DENTITION

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
55	di1	PM			PM	di1	56	
54	di2	P			PM	di2	57	
53	dc	E			E	dc	58	
52	dm1	P			P	dm1	59	
51	dm2	P			P	dm2	60	
66	di1	P			P	di1	65	
67	di2	P			P	di2	64	
68	dc	PM			P	dc	63	
69	dm1	P			P	dm1	62	
70	dm2	P			P	dm2	61	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## AGE ESTIMATION

Dental eruption and mineralization 1978; WEA 1980)	(Ubelaker	Dental age
		3-5

Skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Frontal	Mesotopic suture	< 4	0-4	> 0
Occipital	Pars laterales to pars basilaris	< 4	2-4	> 2
	Basilar part to occipital bone	< 7	5-7	> 5
Mandible	Mandibular symphysis	< 8	3 mth-8	> 3 mths
Vertebrae	Neural arches of C3-C5	< 2	6 mth-2	> 6 mths
	Neural arches of C2	< 4	3-5	> 3
	Neural arches of C1	< 5	4-5	> 4
	Neural arches to centrum (C3-L5)	< 5	2-5	> 2
	Dens to neural arch	< 4	3-4	> 3
	Centrum to neural arch (C2)	< 6	4-5	> 4
	Neural arch to anterior bar (C1)	< 5	4-5	> 4
Sacrum	lateral element to neural arch	< 5	2-5	> 2
	Wing to centra	< 6	2-6	> 2
Pelvis	Ischiopubic ramus	< 8	5-8	> 5
Humerus	Greater and lesser tubercles to head	< 6	2-6	> 2
Skeletal age		3-4		

Juvenile long bone measurements (Schaefer et al. 2009)				
Bone	Measurement	L	R	Age
Clavicle	Length (mm)	69		3-5
Scapula	Length (cm)			
	Width (cm)			
Humerus	Length (mm)			
Radius	Length (mm)			
Ulna	Length (mm)			
Femur	Length (mm)			
Tibia	Length (mm)			
Fibula	Length (mm)			
Skeletal age		3-5		





Overzichtsfoto individu in situ



## SKELETAL STATUS



## DENTAL STATUS

Dental record niet bewaard.

## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left mm	Sex	Right mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)			24,7	F
	Max glenoid length (M>36; F<34)				
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)				
Femur	Max head diameter (M>48; F<43)	42,3	F	43,2	I
	Epicondylar breadth (M>76; F<74)				
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$		=	<div>/</div>
WEA mandible	$\frac{\sum Wx}{\sum W}$		=	<div>/</div>
WEA os coxae	$\frac{\sum Wx}{\sum W}$	-5	=	<div>-0,7</div>
		7		

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	F?	-1	3	-3
Pubic arc/angle	/			
Arc composé	F	-2	2	-4
Innominate bone	/			
Obturator foramen	/			
Ischial body	M?	1	2	2
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		



**AGE ESTIMATION**

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	
		Surface texture	
		Microporosity	
		Macroporosity	
		Apical changes	
	0	Composite score	0
		Age range	

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Tooth wear (Brothwell 1981)	Age

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>21		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		
Porosity		
Osteophyte formation		
Total	0	0
Age		

## STATURE

Geen complete lange pijpbeenderen.



# SKELETFORMULIER

Site: 2023-0164 Boutersem O.L.V.H-kerk

Waarnemer: Nandy Dolman

IND: 23

Datum: 20.08.2024



Overzichtsfoto individu in situ

## SKELETAL STATUS



## DENTAL STATUS

Dental record niet bewaard.



## AGE ESTIMATION

Dental eruption and mineralization 1978; WEA 1980)	(Ubelaker	Dental age
		/

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Spheno occipital synchondrosis	< 18	11-18	> 11
Scapula	Acromiom	< 20	15-20	> 15
	Coraco-Glenoid	< 16	14-18	> 16
	Medial border	< 23	19-23	> 19
	Inferior angle	< 21	17-22	> 17
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Humerus	Proximal	< 20	14-21	> 16
	Medial	< 18	13-18	> 13
	Distal	< 15	11-18	> 12
Ulna	Proximal	< 16	12-18	> 12
	Distal	< 20	15-20	> 15
Radius	Proximal	< 18	12-18	> 13
	Distal	< 19	14-20	> 15
Hand	MC's and phalanges	< 17	11-18	> 12
Sacrum	Auricular surface	< 21	15-21	> 17
	S1-S2 bodies	< 27	14-30	> 21
	S1-S2 alae	< 20	11-27	> 19
	S2-S5 bodies	< 20	12-28	> 19
	S2-S5 alae	< 16	10-21	> 13
Pelvis	ischiopubic ramus	< 8	5-8	> 5
	Ant inf iliac spine	< 18	14-18	> 15
	Ischial tuberosity	< 18	14-20	> 16
Femur	Head	< 18	14-19	> 14
	Greater trochanter	< 18	14-19	> 14
	Lesser trochanter	< 18	16-19	> 14
	Distal	< 19	14-20	> 17
Tibia	Proximal	< 18	14-20	> 17
	Distal	< 18	14-18	> 15
Fibula	Proximal	< 19	14-20	> 15
	Distal	< 18	14-18	> 15
Foot	Calcaneus	< 20	10-20	> 10
	MT's and phalanges	< 17	11-16	> 11
Vertebrae	Annular Rings	< 21	14-23	> 18
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
Skeletal age		< 8		

Juvenile longe bone measurements (Schaefer et al. 2009)				
Bone	Measurement	L	R	Age
Clavicle	Length (mm)			
Scapula	Length (cm)			
	Width (cm)			
Humerus	Length (mm)			
Radius	Length (mm)			
Ulna	Length (mm)			
Femur	Length (mm)	238	235,5	4,5-5
Tibia	Length (mm)		195,5	4,5-5
Fibula	Length (mm)		183,5	4-4,5
	Skeletal age	4-5		



# SKELETFORMULIER

Site: 2023-0164 Boutersem O.L.V.H-kerk

Waarnemer: Nandy Dolman

IND: 24

Datum: 06.03.2025



Overzichtsfoto individu in situ

## SKELETAL STATUS

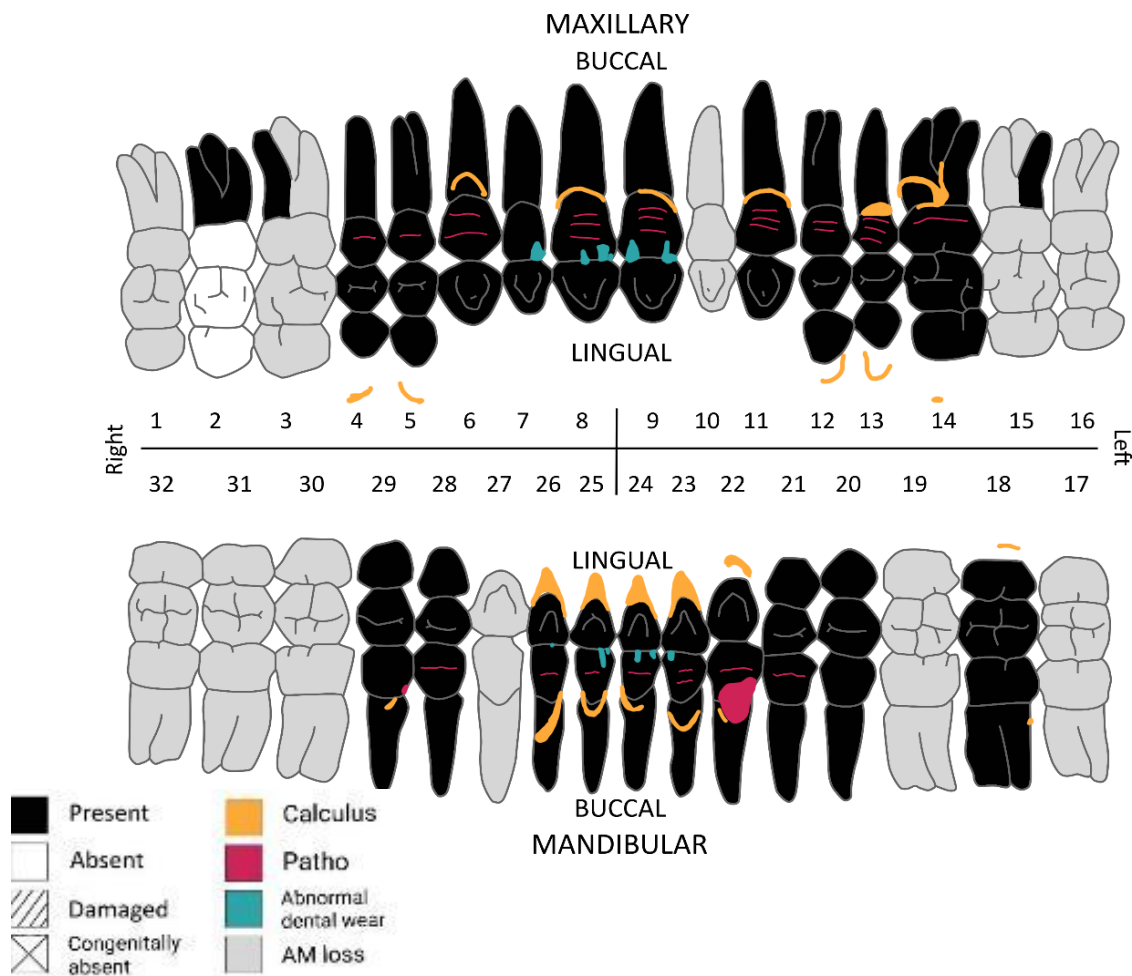


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	P	Cc+, LEH, chipping	Cc+, LEH, chipping	P	I1	9	
7	I2	P	chipping	B	AM	I2	10	
6	C	P	Cc+, LEH	Cc+, LEH	P	C	11	
5	Pm1	P	LEH	Cc+, LEH	P	Pm1	12	
4	Pm2	P	LEH	Cc++, LEH	P	Pm2	13	
3	M1	P/AM	B	Cc+, LEH	P	M1	14	
2	M2	P	periap. Ab, B, top wortel glad geschuurd	top wortel glad geschuurd	P/AM	M2	15	
1	M3	AM	B	B	AM	M3	16	
25	I1	P	Cc++, LEH, chipping	Cc++, LEH, chipping	P	I1	24	
26	I2	P	Cc++, LEH, chipping	Cc++, LEH, chipping	P	I2	23	
27	C	AM	B	Cc+, LEH, bucc. Ca	P	C	22	
28	Pm1	P	LEH	LEH	P	Pm1	21	
29	Pm2	P	Cc+, interprox. Ca		P	Pm2	20	
30	M1	AM	B	B	AM	M1	19	
31	M2	AM	B	Cc+	P	M2	18	
32	M3	AM	B	B	AM	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch





## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)	135	F	140	I
Scapula	Max glenoid width (M>29; F<26)	27,7	I	27,7	I
	Max glenoid length (M>36; F<34)	37,4	M	38	M
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)	43	F	44	F
	Epicondylar breadth (M>60.1; F<60.1)	58,2	F	59,6	F
Femur	Max head diameter (M>48; F<43)				
	Epicondylar breadth (M>76; F<74)				
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{30}{33} =$	<b>0,9</b>
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{-3}{9} =$	<b>-0,3</b>
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{-44}{38} =$	<b>-1,2</b>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	F?	-1	3	-3
Nuchal plane/crest	M?	1	3	3
Parietal & frontal bossing	M	2	2	4
External occipital protuberance	M?	1	2	2
Frontal inclination	M	2	1	2

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	M?	1	3	3
Zygomatic process	M	2	3	6
Supraorbital ridge	F?	-1	2	-2
Zygomatic bone	M?	1	2	2
Orbit shape & margin	M	2	1	2

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	M?	1	3	3
Zygomatic process	M	2	3	6
Supraorbital ridge	F?	-1	2	-2
Zygomatic bone	M?	1	2	2
Orbit shape & margin	M	2	1	2

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	F	-2	3	-6
Mental eminence	F?	-1	2	-2

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	M	2	1	2

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	M?	1	1	1

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F?	-1	3	-3
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	F	-2	2	-4
Arc composé	F	-2	2	-4
Innominate bone	F	-2	2	-4
Obturator foramen	F	-2	2	-4
Ischial body	M	2	2	4
Iliac crest	M	2	1	2
Iliac fossa	F	-2	1	-2
Pelvic inlet (midline)	F	-2	1	-2

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F?	-1	3	-3
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	F	-2	2	-4
Arc composé	F?	-1	2	-2
Innominate bone	F	-2	2	-4
Obturator foramen	F	-2	2	-4
Ischial body	M	2	2	4
Iliac crest	M	2	1	2
Iliac fossa	F	-2	1	-2
Pelvic inlet (midline)	F	-2	1	-2

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc	F	F
Subpubic concavity	M	M
ischio-pubic ramus	F	F

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left	60	12,4	42-87
	Right	48,1	14,6	25-83

Pubic symphysis (Todd 1970)	Side	Range
	Left	50+
	Right	44-50

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	35-39
	Right	35-39

Auricular surface (B & C 2002)	Left	Traits	Right
	3	Transverse org.	3
	3	Surface texture	3
	2	Microporosity	2
	1	Macroporosity	1
	1	Apical changes	1
	10	Composite score	10
	16-65	Age range	16-65

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Tooth wear (Brothwell 1981)	Age
	45+

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>22		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography	3	2
Porosity	2	2
Osteophyte formation	2	2
Total	7	6
Age	41-88	41-88

## STATURE

FEMALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$57,97 + 3,36 \times \text{hum}$	30,9	161,79	31,6	164,15	4,45
Radius	$54,93 + 4,74 \times \text{rad}$	23,3	165,37	23,5	166,32	4,24
Ulna	$57,76 + 4,27 \times \text{ulna}$					4,3
Femur	$54,10 + 2,47 \times \text{fem}$					3,72
Tibia	$61,53 + 2,90 \times \text{tib}$					3,66
Fibula	$59,61 + 2,93 \times \text{fib}$					3,57
Femur + tibia	$53,2 + 1,39 \times (\text{fem} + \text{tib})$					3,55



Overzichtsfoto individu in situ



## SKELETAL STATUS



## DENTAL STATUS

Dental record niet aanwezig.

## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left mm	Sex	Right mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)				
	Max glenoid length (M>36; F<34)				
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)	67,6	M		
Femur	Max head diameter (M>48; F<43)				
	Epicondylar breadth (M>76; F<74)	80,1	M	80,9	M
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$		=	<div>/</div>
WEA mandible	$\frac{\sum Wx}{\sum W}$		=	<div>/</div>
WEA os coxae	$\frac{\sum Wx}{8}$	12	=	<div>1,5</div>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	M	2	2	4
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M?	1	3	3
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	M	2	2	4
Iliac crest	M?	1	1	1
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	25-29

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	2
		Surface texture	2
		Microporosity	2
		Macroporosity	1
		Apical changes	1
	0	Composite score	8
		Age range	21-38

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Tooth wear (Brothwell 1981)	Age



Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)					
Bone	Site	Open	Partial	Closed	
Skull	Jugular synchondroses	< 34	22-34	> 22	
Scapula	Medial border	< 23	19-23	> 19	
Vertebrae	Annular rings	< 21	14-23	>18	
Clavicle	Medial	< 23	17-30	> 21	
Ribs	Heads	< 21	17-22	> 19	
Sacrum	S1-S2 bodies	< 27	14-30	> 21	
Pelvis	Iliac crest	< 20	14-22	> 18	
Manubrium	1st costal notch	< 23	18-25	> 21	
Sternum	B1-B2	< 25	15-25	> 15	
	B2-B3	< 20	15-20	> 11	
	B3-B4	< 15	11-20	> 4	
	B4-Xiphoid	< 40	-	> 35	
Skeletal age		19-20			

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		
Porosity		
Osteophyte formation		
Total	0	0
Age		

## STATURE

MALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$70,45 + 3,08 \times \text{hum}$					4,05
Radius	$79,01 + 3,78 \times \text{rad}$					4,32
Ulna	$74,05 + 3,70 \times \text{ulna}$			26,4	171,73	4,32
Femur	$61,41 + 2,38 \times \text{fem}$					3,27
Tibia	$78,62 + 2,52 \times \text{tib}$	36,4	170,35	37	171,86	3,27
Fibula	$71,78 + 2,68 \times \text{fib}$			37,3	171,74	3,29
Femur + tibia	$63,29 + 1,3 \times (\text{fem} + \text{tib})$					2,99



Overzichtsfoto individu in situ

## SKELETAL STATUS





## DENTAL STATUS

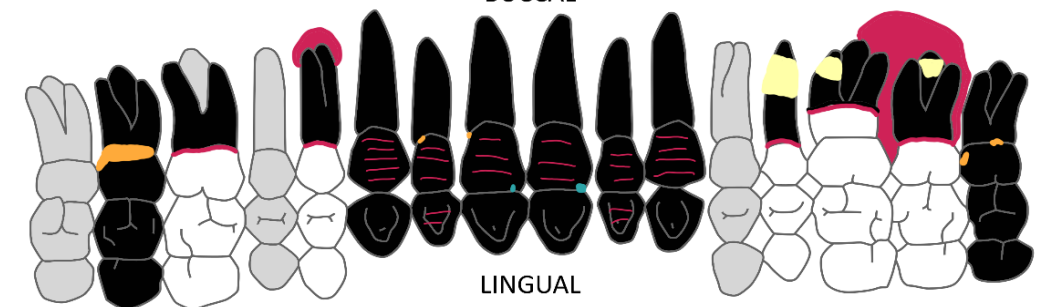
MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	P	LEH, chipping	LEH, chipping	P	I1	9	
7	I2	P	LEH, Cc+	LEH	P	I2	10	
6	C	P	LEH	LEH	P	C	11	
5	Pm1	P	occl. Ca, periap. Ab	B	AM	Pm1	12	
4	Pm2	AM	B	occl. Ca, HC	P	Pm2	13	
3	M1	P/AM	occl. Ca, B	occl. Ca, HC, periap. Ab	P	M1	14	
2	M2	P	Cc++	occl. Ca, HC, periap. Ab	P	M2	15	
1	M3	AM	B	Cc+	P	M3	16	
25	I1	P	Cc++, LEH, chipping	Cc++, LEH	P	I1	24	
26	I2	P	Cc++, LEH	Cc++, LEH	P	I2	23	
27	C	P	Cc+, LEH	Cc++, LEH	P	C	22	
28	Pm1	P	Cc++	CC+, interprox. Ca	P	Pm1	21	
29	Pm2	P		occl. Ca	P	Pm2	20	
30	M1	AM	B	occl. Ca, HC	P	M1	19	
31	M2	P	bucc. en interprox. Ca	B	AM	M2	18	
32	M3	AM	B	Cc+	P	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

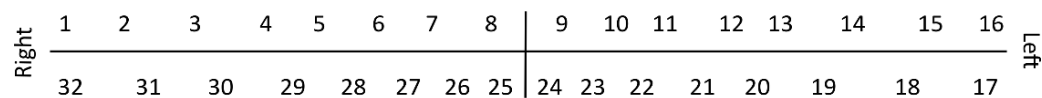
**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch

### MAXILLARY

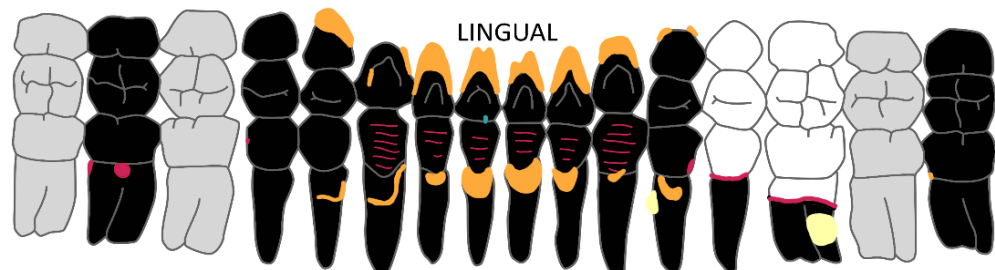
#### BUCCAL



#### LINGUAL



#### LINGUAL



#### BUCCAL

### MANDIBULAR



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)			144	I
Scapula	Max glenoid width (M>29; F<26)				
	Max glenoid length (M>36; F<34)	41,4	M	41,1	M
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)	46,7	I		
	Epicondylar breadth (M>60.1; F<60.1)	66,9	M		
Femur	Max head diameter (M>48; F<43)	46,1	I		
	Epicondylar breadth (M>76; F<74)	78,5	M		
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{21}{23} =$	0,9
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{10}{9} =$	1,1
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{25}{14} =$	1,8

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	M	2	3	6
Nuchal plane/crest	M	2	3	6
Parietal & frontal bossing	/			
External occipital protuberance	/			
Frontal inclination	/			

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	M	2	3	6
Zygomatic process	/			
Supraorbital ridge	F?	-1	2	-2
Zygomatic bone	M?	1	2	2
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	M	2	3	6
Zygomatic process	F?	-1	3	-3
Supraorbital ridge	F?	-1	2	-2
Zygomatic bone	M?	1	2	2
Orbit shape & margin	/			



<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	M	2	3	6
Mental eminence	M?	1	2	2

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M	2	1	2
Inferior margin	F?	-1	1	-1

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M	2	1	2
Inferior margin	F?	-1	1	-1

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M	2	3	6
Pubic arc/angle	/			
Arc composé	M	2	2	4
Innominate bone	/			
Obturator foramen	M?	1	2	2
Ischial body	M	2	2	4
Iliac crest	M	2	1	2
Iliac fossa	M?	1	1	1
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc	M?	
Subpubic concavity	M?	
ischio-pubic ramus	M?	

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	40-44
	Right	

Auricular surface (B & C 2002)	Left	Traits	Right
	2	Transverse org.	
	4	Surface texture	
	2	Microporosity	
	1	Macroporosity	
	1	Apical changes	
	10	Composite score	0
	16-65	Age range	

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)
	closed	>21

Tooth wear (Brothwell 1981)	Age
	25-35

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>22		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography	3	3
Porosity	1	1
Osteophyte formation	2	2
Total	6	6
Age	37-73	37-73

## STATURE

MALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$70,45 + 3,08 \times \text{hum}$					4,05
Radius	$79,01 + 3,78 \times \text{rad}$					4,32
Ulna	$74,05 + 3,70 \times \text{ulna}$					4,32
Femur	$61,41 + 2,38 \times \text{fem}$	45,6	169,94			3,27
Tibia	$78,62 + 2,52 \times \text{tib}$	37,4	172,87	37,3	172,62	3,27
Fibula	$71,78 + 2,68 \times \text{fib}$					3,29
Femur + tibia	$63,29 + 1,3 \times (\text{fem} + \text{tib})$	83	171,19			2,99



Overzichtsfoto individu in situ



## SKELETAL STATUS





## DENTAL STATUS

Dental record niet aanwezig.

## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)				
	Max glenoid length (M>36; F<34)				
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)	60,4	M		
Femur	Max head diameter (M>48; F<43)	43,7	I		
	Epicondylar breadth (M>76; F<74)				
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$		=	<div>/</div>
WEA mandible	$\frac{\sum Wx}{\sum W}$		=	<div>/</div>
WEA os coxae	$\frac{\sum Wx}{20}$	33	=	<div>1,7</div>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M	2	3	6
Pubic arc/angle	/			
Arc composé	M	2	2	4
Innominate bone	/			
Obturator foramen	/			
Ischial body	M?	1	2	2
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M?	1	3	3
Pubic arc/angle	/			
Arc composé	M	2	2	4
Innominate bone	/			
Obturator foramen	/			
Ischial body	M?	1	2	2
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		

# AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	35-39
	Right	35-39

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	
		Surface texture	
		Microporosity	
		Macroporosity	
		Apical changes	
	0	Composite score	0
		Age range	

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Tooth wear (Brothwell 1981)	Age

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>18		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		
Porosity		
Osteophyte formation		
Total	0	0
Age		

## STATURE

Geen complete lange pijpbeenderen.





Overzichtsfoto individu in situ

## SKELETAL STATUS



## DENTAL STATUS

Dental record niet aanwezig.



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)				
	Max glenoid length (M>36; F<34)				
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)				
Femur	Max head diameter (M>48; F<43)	49,3	M	48,1	M
	Epicondylar breadth (M>76; F<74)	83,9	M	82,8	M
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	=	/
WEA mandible	$\frac{\sum Wx}{\sum W}$	=	/
WEA os coxae	$\frac{\sum Wx}{21}$	=	1,5

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M?	1	3	3
Pubic arc/angle	/			
Arc composé	M?	1	2	2
Innominate bone	M	2	2	4
Obturator foramen	/			
Ischial body	M	2	2	4
Iliac crest	M?	1	1	1
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M?	1	3	3
Pubic arc/angle	/			
Arc composé	M?	1	2	2
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		M
Subpubic concavity		/
ischio-pubic ramus		/



## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	50-59
	Right	

Auricular surface (B & C 2002)	Left	Traits	Right
	4	Transverse org.	
	3	Surface texture	
	2	Microporosity	
	3	Macroporosity	
	2	Apical changes	
	14	Composite score	0
	29-88	Age range	

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Tooth wear (Brothwell 1981)	Age

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>21		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		
Porosity		
Osteophyte formation		
Total	0	0
Age		

## STATURE

MALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$70,45 + 3,08 \times \text{hum}$					4,05
Radius	$79,01 + 3,78 \times \text{rad}$					4,32
Ulna	$74,05 + 3,70 \times \text{ulna}$					4,32
Femur	$61,41 + 2,38 \times \text{fem}$			49	178,03	3,27
Tibia	$78,62 + 2,52 \times \text{tib}$	40,1	179,67	40,4	180,43	3,27
Fibula	$71,78 + 2,68 \times \text{fib}$					3,29
Femur + tibia	$63,29 + 1,3 \times (\text{fem} + \text{tib})$			89,4	179,51	2,99



# SKELETFORMULIER

Site: 2023-0164 Boutersem O.L.V.H-kerk

Waarnemer: Nandy Dolman

IND: 31

Datum: 10.03.2025



Overzichtsfoto individu in situ

## SKELETAL STATUS



## DENTAL STATUS



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)				
	Max glenoid length (M>36; F<34)				
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)				
Femur	Max head diameter (M>48; F<43)	36,8	F	36,8	F
	Epicondylar breadth (M>76; F<74)				
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{0}{33} =$	<b>0,0</b>
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{0}{9} =$	<b>0,0</b>
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{-6}{5} =$	<b>-1,2</b>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	F	-2	2	-4
Iliac crest	M	2	1	2
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	F	-2	2	-4
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		

**AGE ESTIMATION**

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	
		Surface texture	
		Microporosity	
		Macroporosity	
		Apical changes	
	0	Composite score	0
		Age range	

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Tooth wear (Brothwell 1981)	Age

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>18		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		
Porosity		
Osteophyte formation		
Total	0	0
Age		

## STATURE

Geen complete lange pijpbeenderen.



# SKELETFORMULIER

Site: 2023-0164 Boutersem O.L.V.H-kerk

Waarnemer: Nandy Dolman

IND: 32

Datum: 11.03.2025



Overzichtsfoto individu in situ

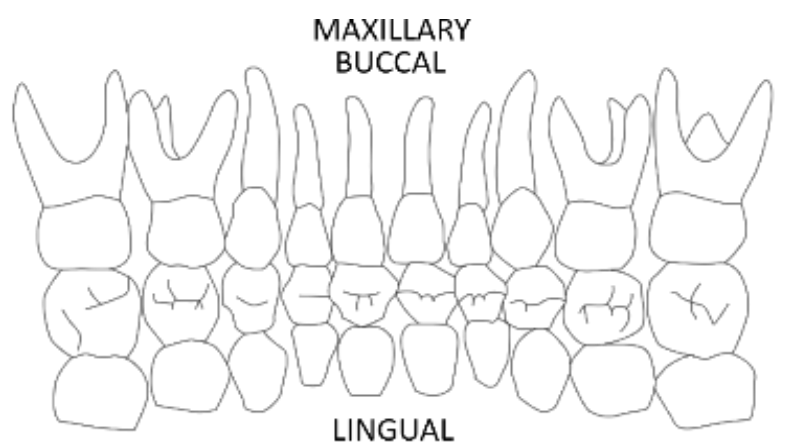


## SKELETAL STATUS

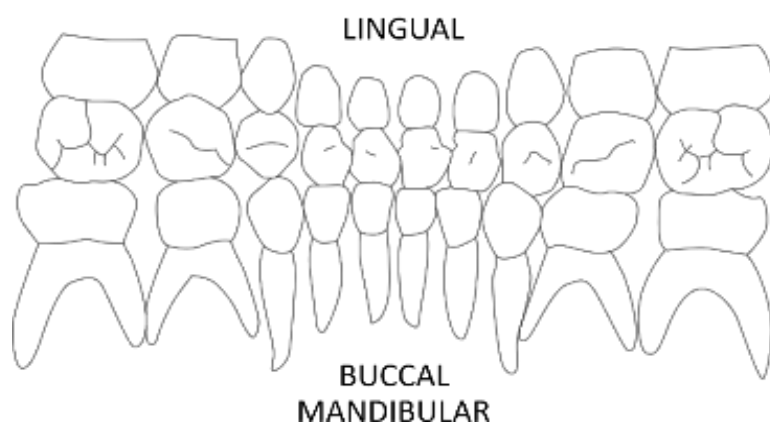



## DENTAL STATUS

Dental record niet bewaard.



Right	51	52	53	54	55	56	57	58	59	60	Left
	70	69	68	67	66	65	64	63	62	61	



- |   |  |
|---|--|
|  Present             |  Calculus             |
|  Absent              |  Patho                |
|  Damaged             |  Abnormal dental wear |
|  Congenitally absent |  AM loss              |

## AGE ESTIMATION

Dental eruption and mineralization 1978; WEA 1980)	(Ubelaker	Dental age

Skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Frontal	Mesotopic suture	< 4	0-4	> 0
Occipital	Pars laterales to pars basilaris	< 4	2-4	> 2
	Basilar part to occipital bone	< 7	5-7	> 5
Mandible	Mandibular symphysis	< 8	3 mth-8	> 3 mths
Vertebrae	Neural arches of C3-C5	< 2	6 mth-2	> 6 mths
	Neural arches of C2	< 4	3-5	> 3
	Neural arches of C1	< 5	4-5	> 4
	Neural arches to centrum (C3-L5)	< 5	2-5	> 2
	Dens to neural arch	< 4	3-4	> 3
	Centrum to neural arch (C2)	< 6	4-5	> 4
	Neural arch to anterior bar (C1)	< 5	4-5	> 4
Sacrum	lateral element to neural arch	< 5	2-5	> 2
	Wing to centra	< 6	2-6	> 2
Pelvis	Ischiopubic ramus	< 8	5-8	> 5
Humerus	Greater and lesser tubercles to head	< 6	2-6	> 2
	<b>Skeletal age</b>	<8		

Juvenile long bone measurements (Schaefer et al. 2009)				
Bone	Measurement	L	R	Age
Clavicle	Length (mm)			
Scapula	Length (cm)			
	Width (cm)			
Humerus	Length (mm)			
Radius	Length (mm)			
Ulna	Length (mm)			
Femur	Length (mm)	163		1,5-2
Tibia	Length (mm)			
Fibula	Length (mm)			
	<b>Skeletal age</b>	1,5-2		



Overzichtsfoto individu in situ



## SKELETAL STATUS

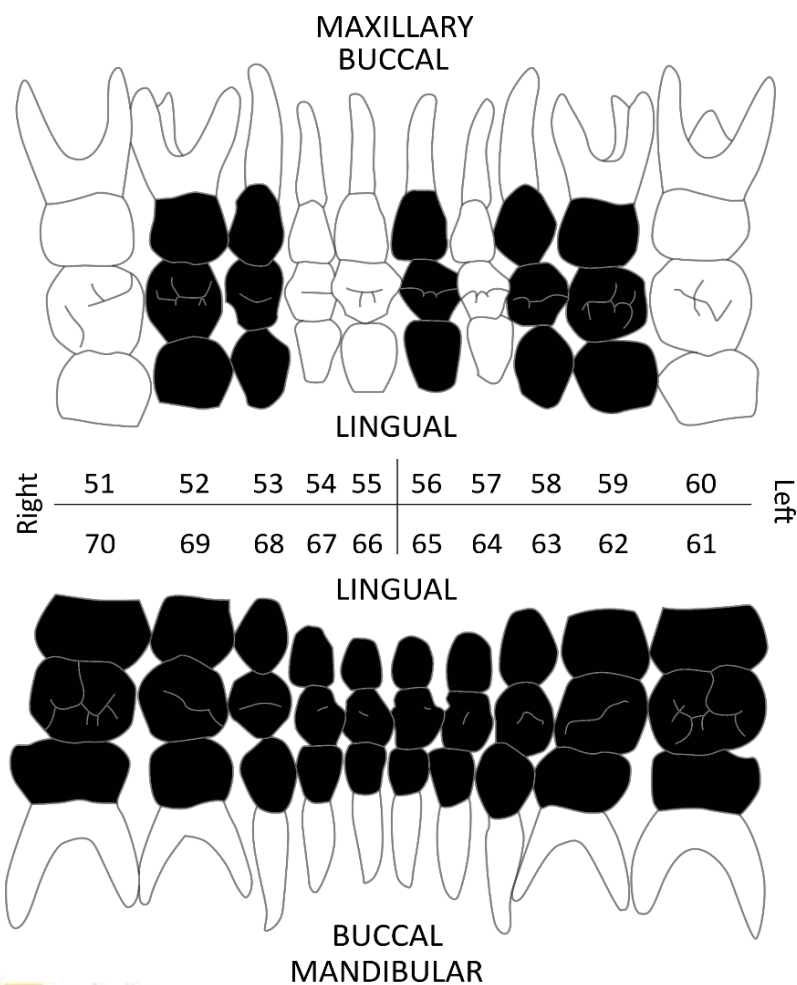


## DENTAL STATUS

MAXILLA							
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.
55	di1	PM			U	di1	56
54	di2	PM			PM	di2	57
53	dc	U			U	dc	58
52	dm1	U			U	dm1	59
51	dm2	PM			PM	dm2	60
66	di1	U			U	di1	65
67	di2	U			U	di2	64
68	dc	U			U	dc	63
69	dm1	U			U	dm1	62
70	dm2	U			U	dm2	61
MANDIBLE							

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## AGE ESTIMATION

Dental eruption and mineralization 1978; WEA 1980)	(Ubelaker	Dental age
		4-8m

Skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Posterior fontanelle	< 3	0-3	> 0
	Anterior fontanelle	< 2	0-2	> 0
Sphenoid	Lesser wings to sphenoid body	< 1 mths		> 5 f mths
	Pre Sphenoid to post sphenoid	< 2 mths		> 8 f mths
	Greater wings to sphenoid body	< 12 mths		> 1 mth
	Foramen ovale (Greater Wing)	< 6 mths		> 1 mth
Temporal	Tympanic ring to temporal squamous	< 1 mths		> 9 f mths
	Petromastoid to squamotympanic	< 12 mths		> 9 f mths
Occipital	Supra-occipital to interparietal squama	< 5 f mths		> 5 f mths
	Superior median fissure	< 11 mths		> 5 mths
	Sutura mendosa	< 1,5	5 mths-1,5	> 5 mths
	Partes laterales to squama	< 4	1-4	> 1
	Hypoglossal canal (pars laterales)	< 4	1,5-4	> 1,5
Frontal	Fusion of 2 halves of frontal bone	< 2	9 mths-2	> 9 mths
	Obliteration of metopic suture (generally)	< 4	2-4	> 2
Mandible	Mental symphysis	< 1	0-1	> 0
Vertebrae	Intradental union (C2)	< full term		> full term
	Neural arches of C3-C5	< 2	6 mths-2	> 6 mths
	Neural arches of C2	< 4	3-4	> 3
	Neural arches of C1	< 5	4-5	> 4
	Neural arches to centrum (C3-L5)	< 5	2-5	> 2
	Dens to neural arch	< 4	3-4	> 3
	Centrum to neural arch (C2)	< 6	4-6	> 4
	Neural arch to anterior bar (C1)	< 5	4-5	> 4
Sacrum	lateral element to neural arch	< 5	2-5	> 2
	Wing to centra	< 6	2-6	> 2
Humerus	Greater and lesser tubercles to head	< 6	2-6	> 2
Skeletal age		5m-1		

APPEARANCE OF PRIMARY ELEMENTS (Schaefer et al. 2009)		
Effective range 0-19		
Bone	Element	Appearance
Skeletal age		

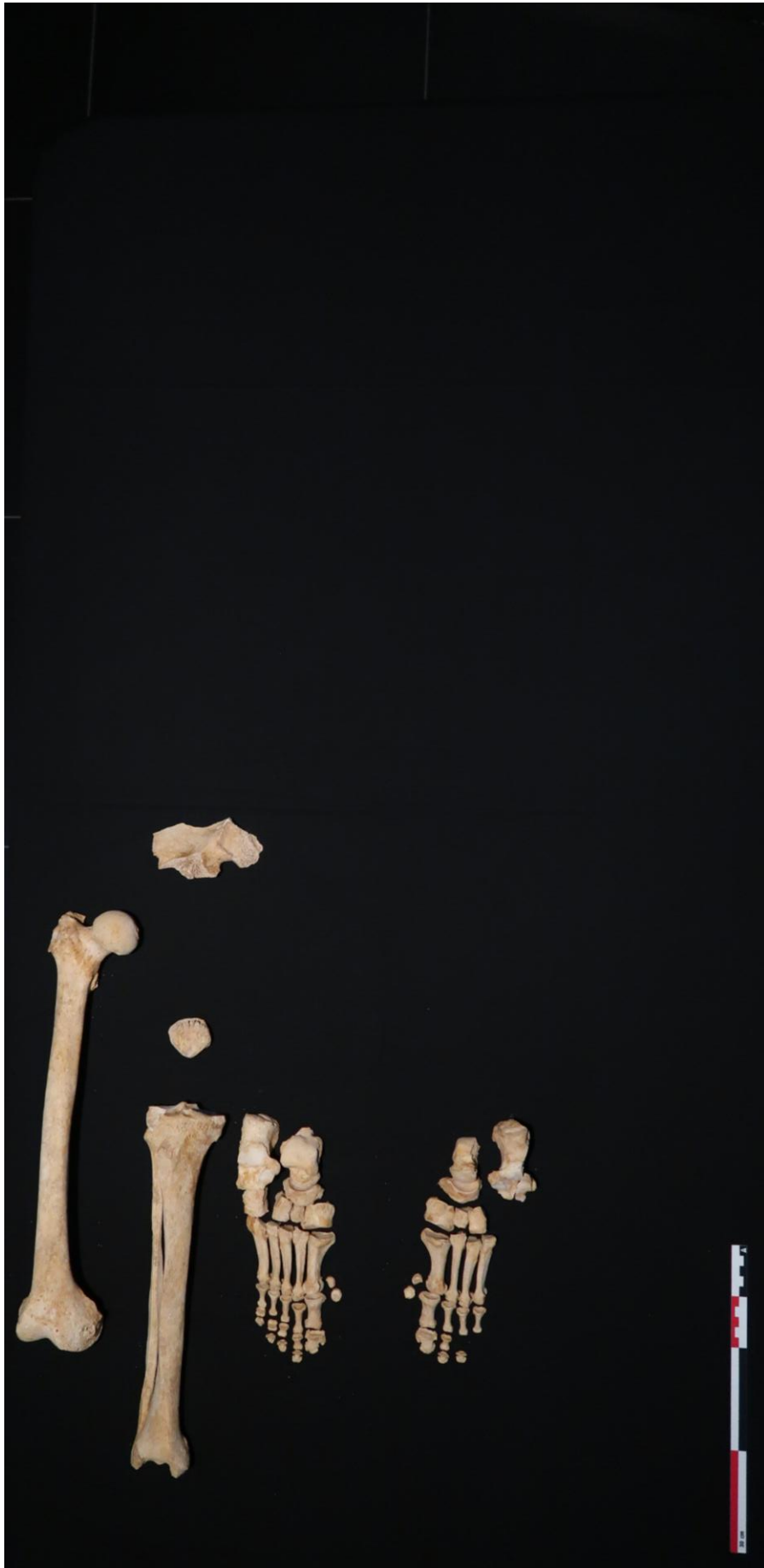
Juvenile longe bone measurements (Schaefer et al. 2009)				
Bone	Measurement	L	R	Age
Clavicle	Length (mm)	52		0-6m
Scapula	Length (cm)			
	Width (cm)			
Humerus	Length (mm)		73,8	1,5-3m
Radius	Length (mm)		60,9	1,5-3m
Ulna	Length (mm)		69	1,5-3m
Femur	Length (mm)			
Tibia	Length (mm)			
Fibula	Length (mm)			
	Skeletal age	1,5-3m		



Overzichtsfoto individu in situ



## SKELETAL STATUS



## DENTAL STATUS

Dental record niet bewaard.

## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)				
	Max glenoid length (M>36; F<34)				
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)				
Femur	Max head diameter (M>48; F<43)			49	M
	Epicondylar breadth (M>76; F<74)			84	M
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$		=	<div>/</div>
WEA mandible	$\frac{\sum Wx}{\sum W}$		=	<div>/</div>
WEA os coxae	$\frac{\sum Wx}{8}$	16	=	<div>2,0</div>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M	2	3	6
Pubic arc/angle	/			
Arc composé	M	2	2	4
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	40-44

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	4
		Surface texture	4
		Microporosity	2
		Macroporosity	1
		Apical changes	1
		Composite score	>12
		Age range	>29

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Tooth wear (Brothwell 1981)	Age



Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)					
Bone	Site	Open	Partial	Closed	
Skull	Jugular synchondroses	< 34	22-34	> 22	
Scapula	Medial border	< 23	19-23	> 19	
Vertebrae	Annular rings	< 21	14-23	>18	
Clavicle	Medial	< 23	17-30	> 21	
Ribs	Heads	< 21	17-22	> 19	
Sacrum	S1-S2 bodies	< 27	14-30	> 21	
Pelvis	Iliac crest	< 20	14-22	> 18	
Manubrium	1st costal notch	< 23	18-25	> 21	
Sternum	B1-B2	< 25	15-25	> 15	
	B2-B3	< 20	15-20	> 11	
	B3-B4	< 15	11-20	> 4	
	B4-Xiphoid	< 40	-	> 35	
	Skeletal age		years		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		
Porosity		
Osteophyte formation		
Total	0	0
Age		

## STATURE

MALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$70,45 + 3,08 \times \text{hum}$					4,05
Radius	$79,01 + 3,78 \times \text{rad}$					4,32
Ulna	$74,05 + 3,70 \times \text{ulna}$					4,32
Femur	$61,41 + 2,38 \times \text{fem}$			44,3	166,84	3,27
Tibia	$78,62 + 2,52 \times \text{tib}$			36,3	170,10	3,27
Fibula	$71,78 + 2,68 \times \text{fib}$			35,7	167,46	3,29
Femur + tibia	$63,29 + 1,3 \times (\text{fem} + \text{tib})$			80,6	168,07	2,99



Overzichtsfoto individu in situ (onderaan, bovenaan IND36)

## SKELETAL STATUS





## DENTAL STATUS

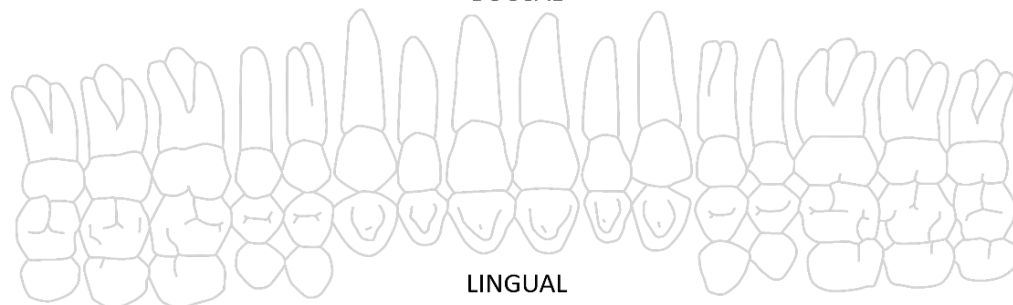
MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	M			M	I1	9	
7	I2	M			M	I2	10	
6	C	M			M	C	11	
5	Pm1	M			M	Pm1	12	
4	Pm2	M			M	Pm2	13	
3	M1	M			M	M1	14	
2	M2	M			M	M2	15	
1	M3	M			M	M3	16	
25	I1	PM			PM	I1	24	
26	I2	PM			PM	I2	23	
27	C	P	interprox. Ca		PM	C	22	
28	Pm1	PM			PM	Pm1	21	
29	Pm2	PM			PM	Pm2	20	
30	M1	AM	B	B	AM	M1	19	
31	M2	AM	B	B	AM	M2	18	
32	M3	?			?	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

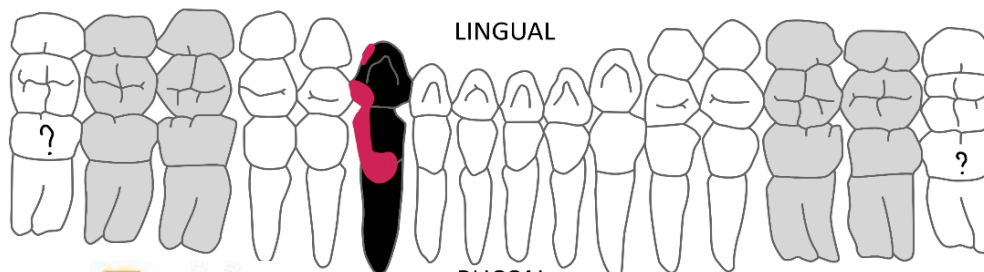
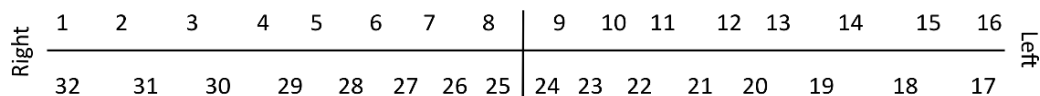
**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch

### MAXILLARY

#### BUCCAL



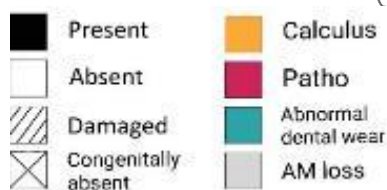
#### LINGUAL



#### LINGUAL

#### BUCCAL

### MANDIBULAR



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)	174	M	173	M
Scapula	Max glenoid width (M>29; F<26)			32,3	M
	Max glenoid length (M>36; F<34)			41	M
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)	48,2	M	48,8	M
	Epicondylar breadth (M>60.1; F<60.1)	61,2	M	64,2	M
Femur	Max head diameter (M>48; F<43)	47,4	I	48,6	M
	Epicondylar breadth (M>76; F<74)	77,4	M	78,8	M
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{35}{23} =$	<b>1,5</b>
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{14}{8} =$	<b>1,8</b>
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{40}{30} =$	<b>1,3</b>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	M?	1	3	3
Nuchal plane/crest	M	2	3	6
Parietal & frontal bossing	M	2	2	4
External occipital protuberance	M	2	2	4
Frontal inclination	M	2	1	2

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	/			
Zygomatic process	/			
Supraorbital ridge	M	2	2	4
Zygomatic bone	M?	1	2	2
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	M?	1	3	3
Zygomatic process	M?	1	3	3
Supraorbital ridge	M	2	2	4
Zygomatic bone	/			
Orbit shape & margin	/			



<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	M	2	3	6
Mental eminence	M?	1	2	2

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	/			
Inferior margin	M	2	1	2

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M	2	1	2
Inferior margin	M	2	1	2

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M?	1	3	3
Pubic arc/angle	M	2	2	4
Arc composé	F	-2	2	-4
Innominate bone	/			
Obturator foramen	M?	1	2	2
Ischial body	M	2	2	4
Iliac crest	M	2	1	2
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M?	1	3	3
Pubic arc/angle	M	2	2	4
Arc composé	M?	1	2	2
Innominate bone	M	2	2	4
Obturator foramen	M?	1	2	2
Ischial body	/			
Iliac crest	M	2	1	2
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc	M	M
Subpubic concavity	M	M
ischio-pubic ramus	M	M

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left	35,2	9,4	23-57
	Right	35,2	9,4	23-57

Pubic symphysis (Todd 1970)	Side	Range
	Left	30-39
	Right	30-39

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	35-39
	Right	35-39

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	
		Surface texture	
		Microporosity	
		Macroporosity	
		Apical changes	
	0	Composite score	0
		Age range	

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Tooth wear (Brothwell 1981)	Age

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>35		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography	2	2
Porosity	1	1
Osteophyte formation	1	3
Total	4	6
Age	36-61	37-73

## STATURE

MALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$70,45 + 3,08 \times \text{hum}$	34,8	177,63	34,9	177,94	4,05
Radius	$79,01 + 3,78 \times \text{rad}$					4,32
Ulna	$74,05 + 3,70 \times \text{ulna}$					4,32
Femur	$61,41 + 2,38 \times \text{fem}$	48,3	176,36	47,4	174,22	3,27
Tibia	$78,62 + 2,52 \times \text{tib}$	39,9	179,17	39,1	177,15	3,27
Fibula	$71,78 + 2,68 \times \text{fib}$					3,29
Femur + tibia	$63,29 + 1,3 \times (\text{fem} + \text{tib})$	88,2	177,95	86,5	175,74	2,99



Overzichtsfoto individu in situ

## SKELETAL STATUS





## DENTAL STATUS

Dental record niet bewaard.

## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)			127	F
Scapula	Max glenoid width (M>29; F<26)			26,1	I
	Max glenoid length (M>36; F<34)			35,9	I
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)			41,1	F
	Epicondylar breadth (M>60.1; F<60.1)			55,5	F
Femur	Max head diameter (M>48; F<43)				
	Epicondylar breadth (M>76; F<74)				
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$		=	<div>/</div>
WEA mandible	$\frac{\sum Wx}{\sum W}$		=	<div>/</div>
WEA os coxae	$\frac{\sum Wx}{\sum W}$	-14 31	=	<div>-0,5</div>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/		3	0
Greater sciatic notch	/		3	0
Pubic arc/angle	/		2	0
Arc composé	/		2	0
Innominate bone	/		2	0
Obturator foramen	/		2	0
Ischial body	/		2	0
Iliac crest	/		1	0
Iliac fossa	/		1	0
Pelvic inlet (midline)	/		1	0

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F?	-1	3	-3
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	/			
Arc composé	F	-2	2	-4
Innominate bone	/			
Obturator foramen	/			
Ischial body	M?	1	2	2
Iliac crest	F?	-1	1	-1
Iliac fossa	F	-2	1	-2
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	25-29

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	2
		Surface texture	1
		Microporosity	2
		Macroporosity	1
		Apical changes	1
	0	Composite score	7
		Age range	21-38

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Tooth wear (Brothwell 1981)	Age

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)					
Bone	Site	Open	Partial	Closed	
Skull	Jugular synchondroses	< 34	22-34	> 22	
Scapula	Medial border	< 23	19-23	> 19	
Vertebrae	Annular rings	< 21	14-23	>18	
Clavicle	Medial	< 23	17-30	> 21	
Ribs	Heads	< 21	17-22	> 19	
Sacrum	S1-S2 bodies	< 27	14-30	> 21	
Pelvis	Iliac crest	< 20	14-22	> 18	
Manubrium	1st costal notch	< 23	18-25	> 21	
Sternum	B1-B2	< 25	15-25	> 15	
	B2-B3	< 20	15-20	> 11	
	B3-B4	< 15	11-20	> 4	
	B4-Xiphoid	< 40	-	> 35	
	Skeletal age	18-30			

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		
Porosity		
Osteophyte formation		
Total	0	0
Age		

## STATURE

FEMALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$57,97 + 3,36 \times \text{hum}$			29,3	156,42	4,45
Radius	$54,93 + 4,74 \times \text{rad}$			22,5	161,58	4,24
Ulna	$57,76 + 4,27 \times \text{ulna}$					4,3
Femur	$54,10 + 2,47 \times \text{fem}$					3,72
Tibia	$61,53 + 2,90 \times \text{tib}$					3,66
Fibula	$59,61 + 2,93 \times \text{fib}$					3,57
Femur + tibia	$53,2 + 1,39 \times (\text{fem} + \text{tib})$					3,55





Overzichtsfoto individu in situ

## SKELETAL STATUS

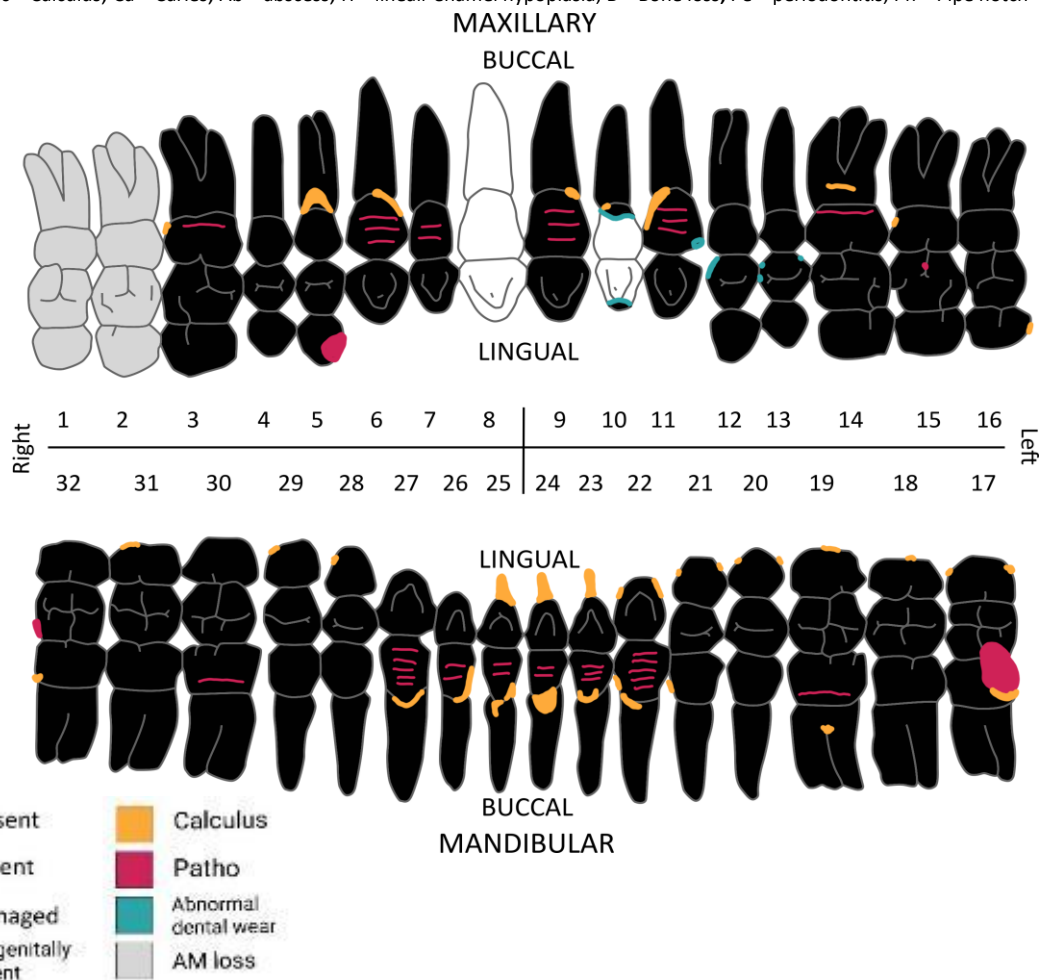


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	PM		LEH, Cc+	P	I1	9	
7	I2	P	LEH	Cc, abnormale slijtage	P	I2	10	
6	C	P	LEH, Cc+	Cc++, LEH, chipping	P	C	11	
5	Pm1	P	Cc+, interprox. Ca	chipping	P	Pm1	12	
4	Pm2	P		chipping	P	Pm2	13	
3	M1	P	LEH, Cc+	LEH, Cc+	P	M1	14	
2	M2	AM	B	occl. Ca, Cc+	P	M2	15	
1	M3	AM	B	Cc+	P	M3	16	
25	I1	P	LEH, Cc++	LEH, Cc++	P	I1	24	
26	I2	P	LEH, Cc++	LEH, Cc++	P	I2	23	
27	C	P	LEH, Cc+	LEH, Cc++	P	C	22	
28	Pm1	P	Cc+	Cc+	P	Pm1	21	
29	Pm2	P	Cc+	Cc+	P	Pm2	20	
30	M1	P	LEH	LEH, Cc+	P	M1	19	
31	M2	P	Cc+	Cc+	P	M2	18	
32	M3	P	Cc+, interprox. Ca	Cc+, interprox. Ca	P	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch





## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)	150	M	154	M
Scapula	Max glenoid width (M>29; F<26)	30,9	M		
	Max glenoid length (M>36; F<34)	39,5	M	38,9	M
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)	44,2	F	44,3	F
	Epicondylar breadth (M>60.1; F<60.1)	66,5	M	65,2	M
Femur	Max head diameter (M>48; F<43)	50,3	M	50,9	M
	Epicondylar breadth (M>76; F<74)	80,9	M	81,3	M
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{33}{24} =$	<b>1,4</b>
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{14}{9} =$	<b>1,6</b>
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{70}{38} =$	<b>1,8</b>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	M?	1	3	3
Nuchal plane/crest	M?	1	3	3
Parietal & frontal bossing	M?	1	2	2
External occipital protuberance	M?	1	2	2
Frontal inclination	F?	-1	1	-1

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	M	2	3	6
Zygomatic process	M	2	3	6
Supraorbital ridge	M	2	2	4
Zygomatic bone	M?	1	2	2
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	M	2	3	6
Zygomatic process	/			
Supraorbital ridge	/			
Zygomatic bone	/			
Orbit shape & margin	/			

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	M	2	3	6
Mental eminence	I	0	2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M	2	1	2
Inferior margin	M	2	1	2

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M	2	1	2
Inferior margin	M	2	1	2

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M	2	3	6
Pubic arc/angle	M	2	2	4
Arc composé	M	2	2	4
Innominate bone	M	2	2	4
Obturator foramen	M?	1	2	2
Ischial body	M	2	2	4
Iliac crest	M?	1	1	1
Iliac fossa	M	2	1	2
Pelvic inlet (midline)	M	2	1	2

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M	2	3	6
Pubic arc/angle	M	2	2	4
Arc composé	M	2	2	4
Innominate bone	M	2	2	4
Obturator foramen	M?	1	2	2
Ischial body	M	2	2	4
Iliac crest	M?	1	1	1
Iliac fossa	M	2	1	2
Pelvic inlet (midline)	M	2	1	2

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc	M?	M?
Subpubic concavity	M	M
ischio-pubic ramus	M	M



## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left	35,2	9,4	23-57
	Right	35,2	9,4	23-57

Pubic symphysis (Todd 1970)	Side	Range
	Left	30-35
	Right	30-35

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	40-44
	Right	40-44

Auricular surface (B & C 2002)	Left	Traits	Right
	4	Transverse org.	4
	5	Surface texture	5
	1	Microporosity	1
	2	Macroporosity	2
	1	Apical changes	1
	13	Composite score	13
	29-88	Age range	29-88

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)
	Closed	>21

Tooth wear (Brothwell 1981)	Age
	25-35

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>35		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography	2	2
Porosity	2	2
Osteophyte formation	1	1
Total	5	5
Age	36-61	36-61

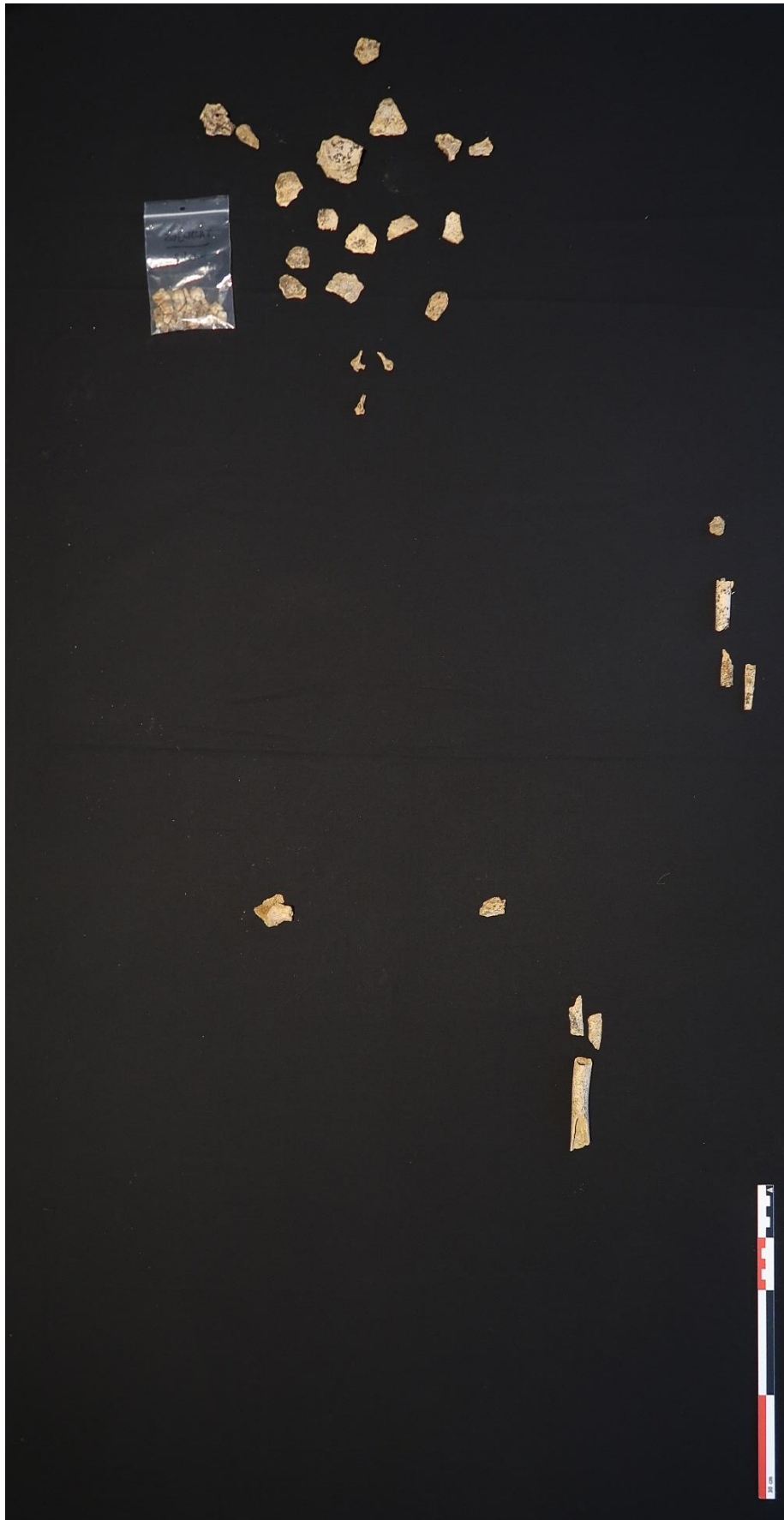
## STATURE

MALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$70,45 + 3,08 \times \text{hum}$	34,6	177,02			4,05
Radius	$79,01 + 3,78 \times \text{rad}$					4,32
Ulna	$74,05 + 3,70 \times \text{ulna}$					4,32
Femur	$61,41 + 2,38 \times \text{fem}$	47,5	174,46	47,5	174,46	3,27
Tibia	$78,62 + 2,52 \times \text{tib}$	38,7	176,14			3,27
Fibula	$71,78 + 2,68 \times \text{fib}$					3,29
Femur + tibia	$63,29 + 1,3 \times (\text{fem} + \text{tib})$	86,2	175,35			2,99



Overzichtsfoto individu in situ

## SKELETAL STATUS



# DENTAL STATUS

## PERMANENT DENTITION

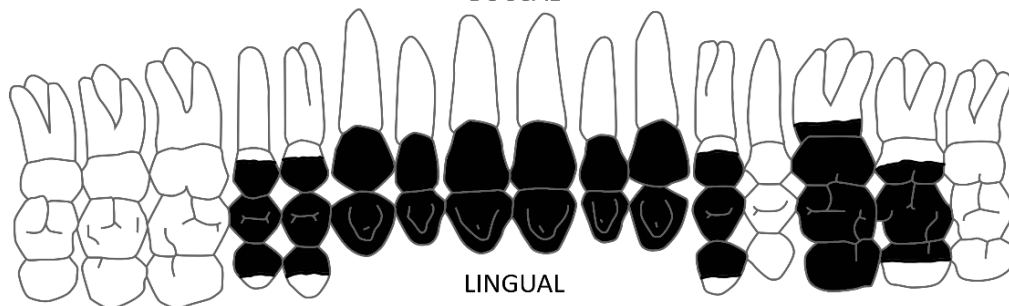
MAXILLA							
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.
8	I1	U			U	I1	9
7	I2	U			U	I2	10
6	C	U			U	C	11
5	Pm1	U			U	Pm1	12
4	Pm2	U			M	Pm2	13
3	M1	M			U	M1	14
2	M2	M			U	M2	15
1	M3	M			M	M3	16
25	I1	U			U	I1	24
26	I2	U			U	I2	23
27	C	U			U	C	22
28	Pm1	U			U	Pm1	21
29	Pm2	U			U	Pm2	20
30	M1	U			U	M1	19
31	M2	U			M	M2	18
32	M3	M			M	M3	17
MANDIBLE							

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

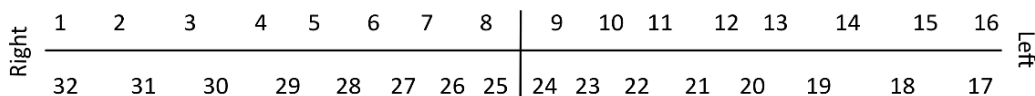
**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch

### MAXILLARY

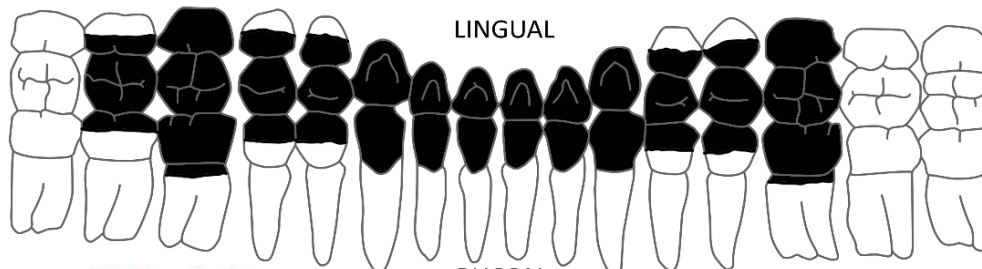
#### BUCCAL



#### LINGUAL



#### LINGUAL



#### BUCCAL

### MANDIBULAR



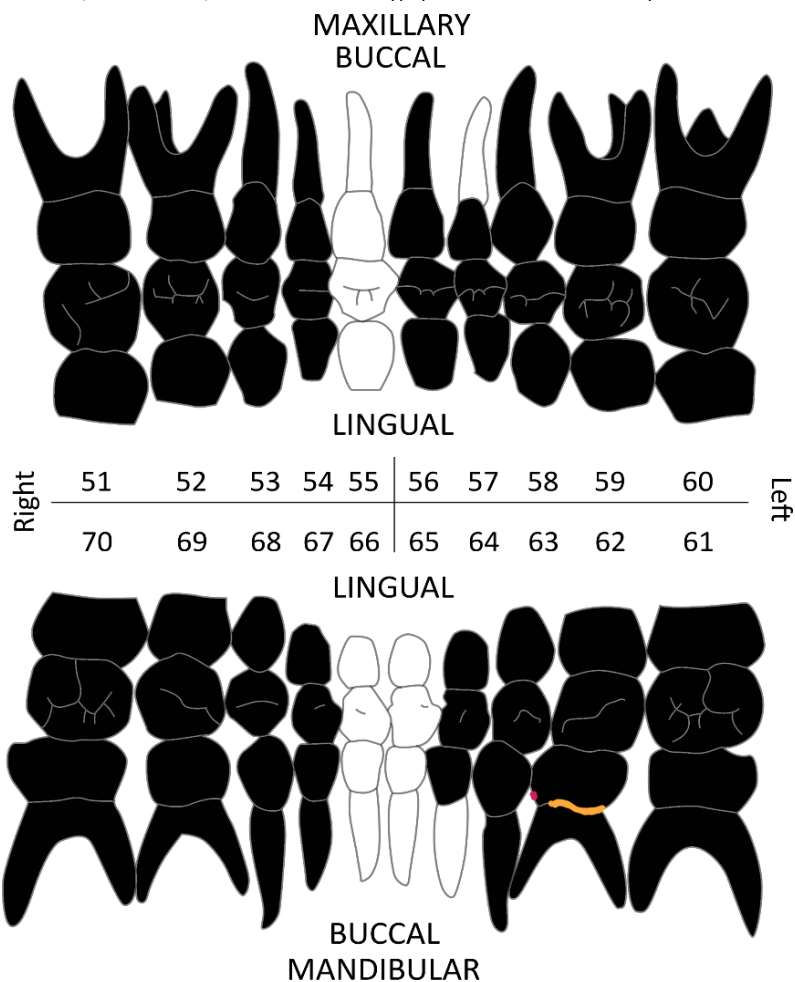


## DECIDUOUS DENTITION

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
55	di1	M			P	di1	56	
54	di2	P			P	di2	57	
53	dc	P			P	dc	58	
52	dm1	P			P	dm1	59	
51	dm2	P			P	dm2	60	
66	di1	M			M	di1	65	
67	di2	P			P	di2	64	
68	dc	P			P	dc	63	
69	dm1	P		CC+, interprox. Ca	P	dm1	62	
70	dm2	P			P	dm2	61	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## AGE ESTIMATION

Dental eruption and mineralization 1978; WEA 1980)	(Ubelaker	Dental age
		3-5

Skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Frontal	Mesotopic suture	< 4	0-4	> 0
Occipital	Pars laterales to pars basilaris	< 4	2-4	> 2
	Basilar part to occipital bone	< 7	5-7	> 5
Mandible	Mandibular symphysis	< 8	3 mth-8	> 3 mths
Vertebrae	Neural arches of C3-C5	< 2	6 mth-2	> 6 mths
	Neural arches of C2	< 4	3-5	> 3
	Neural arches of C1	< 5	4-5	> 4
	Neural arches to centrum (C3-L5)	< 5	2-5	> 2
	Dens to neural arch	< 4	3-4	> 3
	Centrum to neural arch (C2)	< 6	4-5	> 4
	Neural arch to anterior bar (C1)	< 5	4-5	> 4
Sacrum	lateral element to neural arch	< 5	2-5	> 2
	Wing to centra	< 6	2-6	> 2
Pelvis	Ischiopubic ramus	< 8	5-8	> 5
Humerus	Greater and lesser tubercles to head	< 6	2-6	> 2
Skeletal age				

Juvenile long bone measurements (Schaefer et al. 2009)				
Bone	Measurement	L	R	Age
Clavicle	Length (mm)			
Scapula	Length (cm)			
	Width (cm)			
Humerus	Length (mm)			
Radius	Length (mm)			
Ulna	Length (mm)			
Femur	Length (mm)			
Tibia	Length (mm)			
Fibula	Length (mm)			
Skeletal age				



# SKELETFORMULIER

Site: 2023-0164 Boutersem O.L.V.H-kerk

Waarnemer: Nandy Dolman

IND: 47

Datum: 25.03.2025



Overzichtsfoto individu in situ

## SKELETAL STATUS

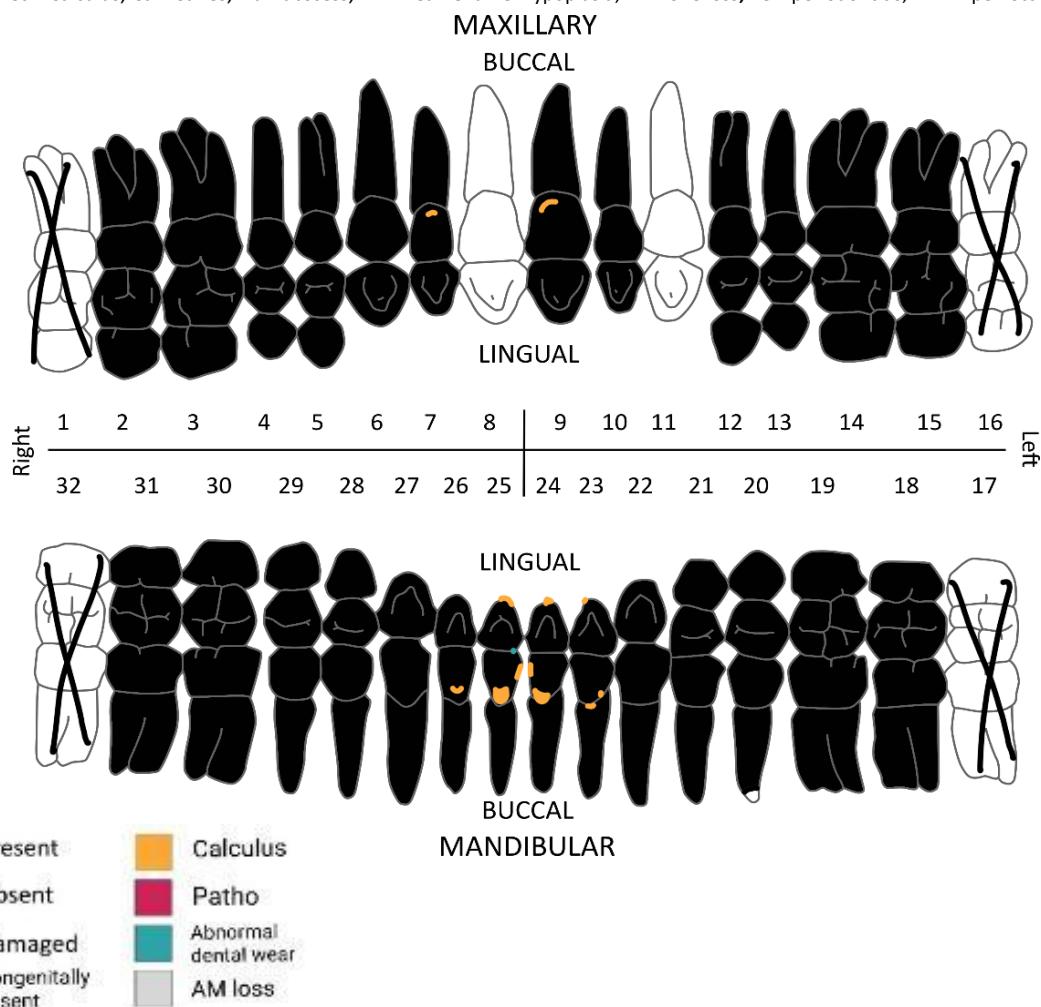


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	PM		Cc+	P	I1	9	
7	I2	P	Cc+		P	I2	10	
6	C	P			PM	C	11	
5	Pm1	P			P	Pm1	12	
4	Pm2	P			P	Pm2	13	
3	M1	P			P	M1	14	
2	M2	P			P	M2	15	
1	M3	C			C	M3	16	
25	I1	P	Cc++, chipping	Cc+	P	I1	24	
26	I2	P	Cc+	Cc+	P	I2	23	
27	C	P			P	C	22	
28	Pm1	P			P	Pm1	21	
29	Pm2	P			E	Pm2	20	
30	M1	P			P	M1	19	
31	M2	P			P	M2	18	
32	M3	C			C	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch





## AGE ESTIMATION

Dental eruption and mineralization 1978; WEA 1980)	(Ubelaker	Dental age
		9,5-14,5

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Spheno occipital synchondrosis	< 18	11-18	> 11
Scapula	Acromiom	< 20	15-20	> 15
	Coraco-Glenoid	< 16	14-18	> 16
	Medial border	< 23	19-23	> 19
	Inferior angle	< 21	17-22	> 17
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Humerus	Proximal	< 20	14-21	> 16
	Medial	< 18	13-18	> 13
	Distal	< 15	11-18	> 12
Ulna	Proximal	< 16	12-18	> 12
	Distal	< 20	15-20	> 15
Radius	Proximal	< 18	12-18	> 13
	Distal	< 19	14-20	> 15
Hand	MC's and phalanges	< 17	11-18	> 12
Sacrum	Auricular surface	< 21	15-21	> 17
	S1-S2 bodies	< 27	14-30	> 21
	S1-S2 alae	< 20	11-27	> 19
	S2-S5 bodies	< 20	12-28	> 19
	S2-S5 alae	< 16	10-21	> 13
Pelvis	Illiic crest	< 20	14-22	> 18
	Ischiopubic ramus	< 8	5-8	> 5
	Ischial tuberosity	< 18	14-20	> 16
Femur	Head	< 18	14-19	> 14
	Greater trochanter	< 18	14-19	> 14
	Lesser trochanter	< 18	16-19	> 14
	Distal	< 19	14-20	> 17
Tibia	Proximal	< 18	14-20	> 17
	Distal	< 18	14-18	> 15
Fibula	Proximal	< 19	14-20	> 15
	Distal	< 18	14-18	> 15
Foot	Calcaneus	< 20	10-20	> 10
	MT's and phalanges	< 17	11-16	> 11
Vertebrae	Annular Rings	< 21	14-23	> 18
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
Skeletal age		5-15		

Juvenile longe bone measurements (Schaefer et al. 2009)				
Bone	Measurement	L	R	Age
Clavicle	Length (mm)		122	14-15
Scapula	Length (cm)			
	Width (cm)			
Humerus	Length (mm)	263		11-13
Radius	Length (mm)			
Ulna	Length (mm)			
Femur	Length (mm)			
Tibia	Length (mm)			
Fibula	Length (mm)			
	Skeletal age		11-15	



# SKELETFORMULIER

Site: 2023-0164 Boutersem O.L.V.H-kerk

Waarnemer: Nandy Dolman

IND: 48

Datum: 19.03.2025



Overzichtsfoto individu in situ

**SKELETAL STATUS**



DENTAL STATUS

Dental record niet bewaard.



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)				
	Max glenoid length (M>36; F<34)				
	Max length (M>151; M?>149; F?<144; F<140)				
Humerus	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)				
	Max head diameter (M>48; F<43)				
Femur	Epicondylar breadth (M>76; F<74)				
	Ischiopubic index (M = 52-71; F = 68 - 91)				
Os coxae					

### NON-METRIC TRAITS

WEA cranium	$\frac{\sum Wx}{\sum W}$		=	<input type="text"/>
WEA mandible	$\frac{\sum Wx}{\sum W}$		=	<input type="text"/>
WEA os coxae	$\frac{\sum Wx}{\sum W}$		=	<input type="text"/>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus			3	0
Greater sciatic notch			3	0
Pubic arc/angle			2	0
Arc composé			2	0
Innominate bone			2	0
Obturator foramen			2	0
Ischial body			2	0
Iliac crest			1	0
Iliac fossa			1	0
Pelvic inlet (midline)			1	0

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus			3	0
Greater sciatic notch			3	0
Pubic arc/angle			2	0
Arc composé			2	0
Innominate bone			2	0
Obturator foramen			2	0
Ischial body			2	0
Iliac crest			1	0
Iliac fossa			1	0
Pelvic inlet (midline)			1	0

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		

#### AGE ESTIMATION

Dental eruption and mineralization 1978; WEA 1980)	(Ubelaker	Dental age

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Spheno occipital synchondrosis	< 18	11-18	> 11
Scapula	Acromiom	< 20	15-20	> 15
	Coraco-Glenoid	< 16	14-18	> 16
	Medial border	< 23	19-23	> 19
	Inferior angle	< 21	17-22	> 17
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Humerus	Proximal	< 20	14-21	> 16
	Medial	< 18	13-18	> 13
	Distal	< 15	11-18	> 12
Ulna	Proximal	< 16	12-18	> 12
	Distal	< 20	15-20	> 15
Radius	Proximal	< 18	12-18	> 13
	Distal	< 19	14-20	> 15
Hand	MC's and phalanges	< 17	11-18	> 12
Sacrum	Auricular surface	< 21	15-21	> 17
	S1-S2 bodies	< 27	14-30	> 21
	S1-S2 alae	< 20	11-27	> 19
	S2-S5 bodies	< 20	12-28	> 19
	S2-S5 alae	< 16	10-21	> 13
Pelvis	Illiic crest	< 20	14-22	> 18
	Ant inf iliac spine	< 18	14-18	> 15
	Ischial tuberosity	< 18	14-20	> 16
Femur	Head	< 18	14-19	> 14
	Greater trochanter	< 18	14-19	> 14
	Lesser trochanter	< 18	16-19	> 14
	Distal	< 19	14-20	> 17
Tibia	Proximal	< 18	14-20	> 17
	Distal	< 18	14-18	> 15
Fibula	Proximal	< 19	14-20	> 15
	Distal	< 18	14-18	> 15
Foot	Calcaneus	< 20	10-20	> 10
	MT's and phalanges	< 17	11-16	> 11
Vertebrae	Annular Rings	< 21	14-23	> 18
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
Skeletal age		>17		

## **STATURE**

Geen complete lange pijpbeenderen.



Overzichtsfoto individu in situ



## SKELETAL STATUS



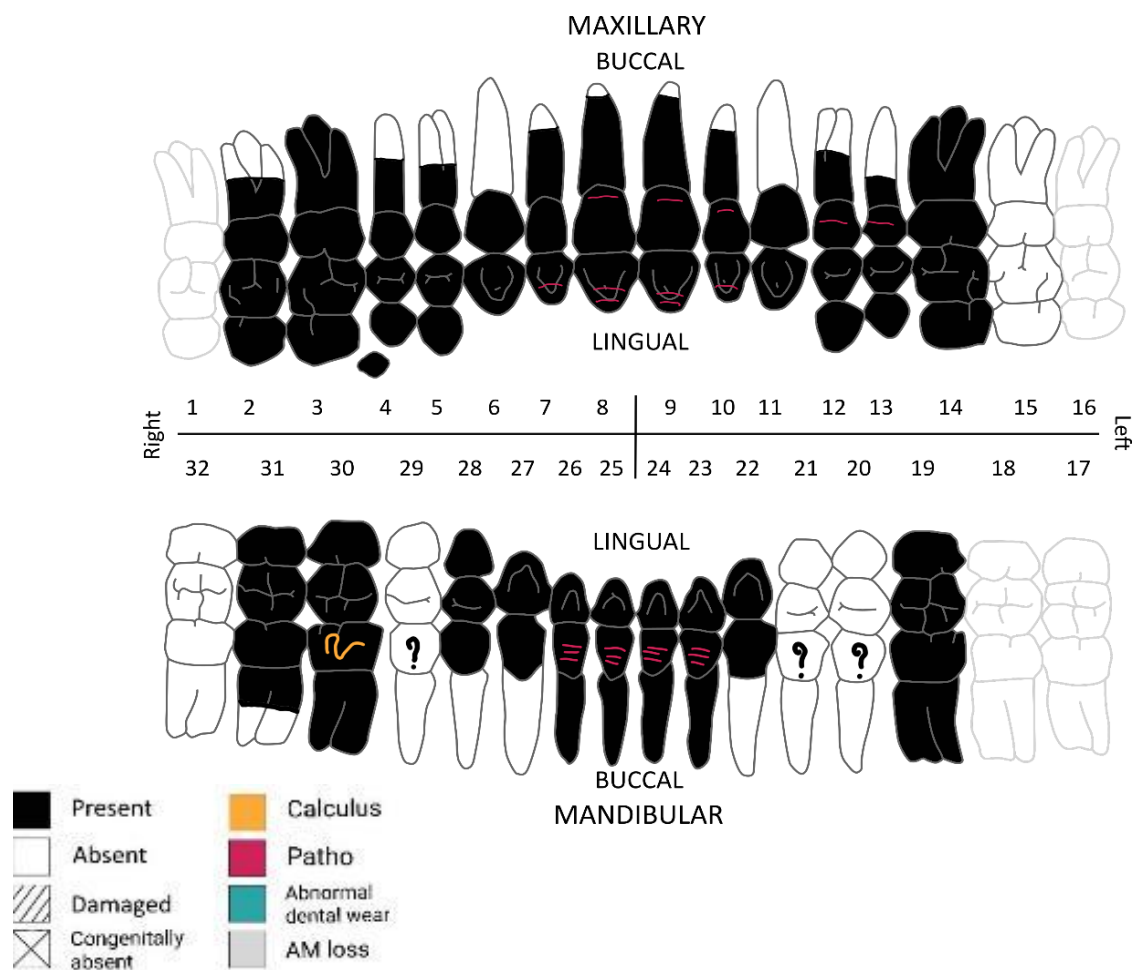
# DENTAL STATUS

## PERMANENT DENTITION

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	E	LEH	LEH	E	I1	9	
7	I2	E	LEH	LEH	E	I2	10	
6	C	U			U	C	11	
5	Pm1	E		LEH	E	Pm1	12	
4	Pm2	E	Linguaal extra tand punt kroon net boven kaaklijn	LEH	E	Pm2	13	
3	M1	P			P	M1	14	
2	M2	E			PM	M2	15	
1	M3	M			M	M3	16	
25	I1	P	LEH	LEH	P	I1	24	
26	I2	P	LEH	LEH	P	I2	23	
27	C	U			U	C	22	
28	Pm1	U		niet zichtbaar	?	Pm1	21	
29	Pm2	?	niet zichtbaar	niet zichtbaar	?	Pm2	20	
30	M1	P	Cc+		P	M1	19	
31	M2	E			M	M2	18	
32	M3	PM			M	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch

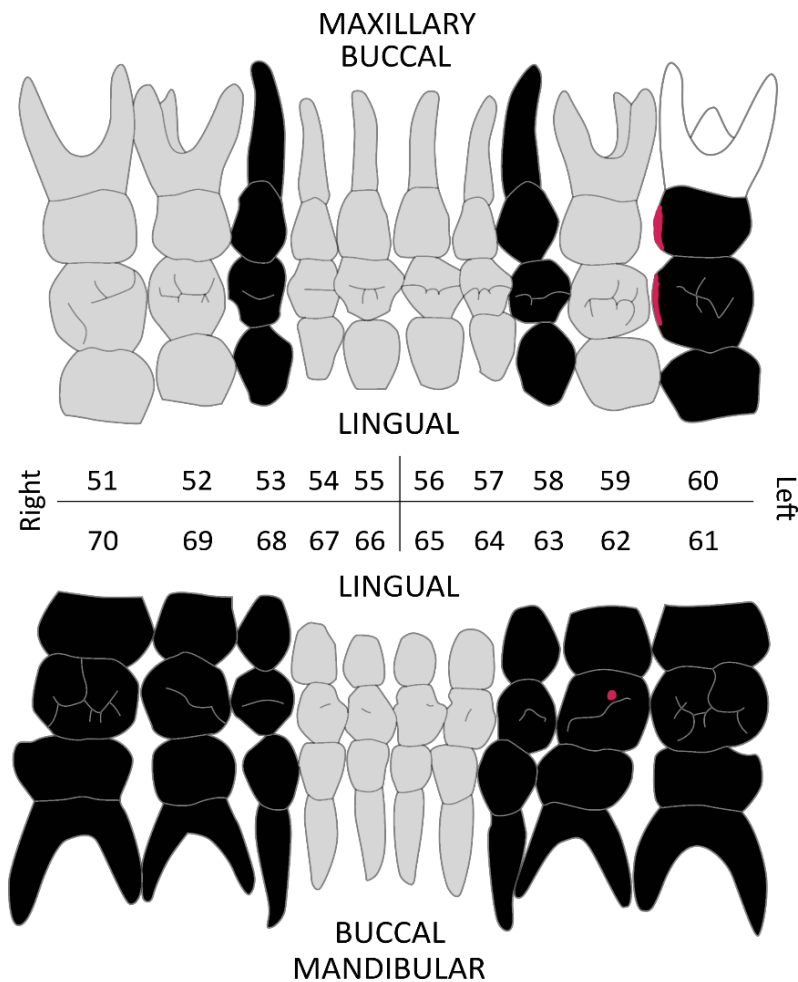


## DECIDUOUS DENTITION

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
55	di1		gewisseld	gewisseld		di1	56	
54	di2		gewisseld	gewisseld		di2	57	
53	dc	P			P	dc	58	
52	dm1		gewisseld	gewisseld		dm1	59	
51	dm2		gewisseld	interprox. Ca	P	dm2	60	
66	di1		gewisseld	gewisseld		di1	65	
67	di2		gewisseld	gewisseld		di2	64	
68	dc	P			P	dc	63	
69	dm1	P		occl. Ca	P	dm1	62	
70	dm2	P			P	dm2	61	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## AGE ESTIMATION

Dental eruption and mineralization 1978; WEA 1980)	(Ubelaker	Dental age
		7-11

Skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Frontal	Mesotopic suture	< 4	0-4	> 0
Occipital	Pars laterales to pars basilaris	< 4	2-4	> 2
	Basilar part to occipital bone	< 7	5-7	> 5
Mandible	Mandibular symphysis	< 8	3 mth-8	> 3 mths
Vertebrae	Neural arches of C3-C5	< 2	6 mth-2	> 6 mths
	Neural arches of C2	< 4	3-5	> 3
	Neural arches of C1	< 5	4-5	> 4
	Neural arches to centrum (C3-L5)	< 5	2-5	> 2
	Dens to neural arch	< 4	3-4	> 3
	Centrum to neural arch (C2)	< 6	4-5	> 4
	Neural arch to anterior bar (C1)	< 5	4-5	> 4
Sacrum	lateral element to neural arch	< 5	2-5	> 2
	Wing to centra	< 6	2-6	> 2
Pelvis	Ischiopubic ramus	< 8	5-8	> 5
Humerus	Greater and lesser tubercles to head	< 6	2-6	> 2
	Proximal	< 20	14-21	> 16
	Distal	< 15	11-18	> 12
Scapula	Coraco-Glenoid	< 16	14-18	> 16
Ulna	Proximal	< 16	12-18	> 12
	Distal	< 20	15-20	> 15
Radius	Proximal	< 18	12-18	> 13
	Distal	< 19	14-20	> 15
Hand	MC's and phalanges	< 17	11-18	> 12
Femur	Head	< 18	14-19	> 14
	Greater trochanter	< 18	14-19	> 14
	Lesser trochanter	< 18	16-19	> 14
	Distal	< 19	14-20	> 17
Skeletal age		5-16		

Juvenile longe bone measurements (Schaefer et al. 2009)				
Bone	Measurement	L	R	Age
Clavicle	Length (mm)		100,5	8-11
Scapula	Length (cm)			
	Width (cm)			
Humerus	Length (mm)		221	8-9
Radius	Length (mm)		157	7-8
Ulna	Length (mm)			
Femur	Length (mm)		310	7-9
Tibia	Length (mm)			
Fibula	Length (mm)			
	Skeletal age	7-9		





Overzichtsfoto individu in situ

## SKELETAL STATUS



## DENTAL STATUS

Dental record niet bewaard.

## AGE ESTIMATION

Dental eruption and mineralization 1978; WEA 1980)	(Ubelaker	Dental age

Skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Posterior fontanelle	< 3	0-3	> 0
	Anterior fontanelle	< 2	0-2	> 0
Sphenoid	Lesser wings to sphenoid body	< 1 mths		> 5 f mths
	Pre Sphenoid to post sphenoid	< 2 mths		> 8 f mths
	Greater wings to sphenoid body	< 12 mths		> 1 mth
	Foramen ovale (Greater Wing)	< 6 mths		> 1 mth
Temporal	Tympanic ring to temporal squamous	< 1 mths		> 9 f mths
	Petromastoid to squamotympanic	< 12 mths		> 9 f mths
Occipital	Supra-occipital to interparietal squama	< 5 f mths		> 5 f mths
	Superior median fissure	< 11 mths		> 5 mths
	Sutura mendosa	< 1,5	5 mths-1,5	> 5 mths
	Partes laterales to squama	< 4	1-4	> 1
	Hypoglossal canal (pars laterales)	< 4	1,5-4	> 1,5
Frontal	Fusion of 2 halves of frontal bone	< 2	9 mths-2	> 9 mths
	Obliteration of metopic suture (generally)	< 4	2-4	> 2
Mandible	Mental symphysis	< 1	0-1	> 0
Vertebrae	Intradental union (C2)	< full term		> full term
	Neural arches of C3-C5	< 2	6 mths-2	> 6 mths
	Neural arches of C2	< 4	3-4	> 3
	Neural arches of C1	< 5	4-5	> 4
	Neural arches to centrum (C3-L5)	< 5	2-5	> 2
	Dens to neural arch	< 4	3-4	> 3
	Centrum to neural arch (C2)	< 6	4-6	> 4
	Neural arch to anterior bar (C1)	< 5	4-5	> 4
Sacrum	lateral element to neural arch	< 5	2-5	> 2
	Wing to centra	< 6	2-6	> 2
Humerus	Greater and lesser tubercles to head	< 6	2-6	> 2
Skeletal age		5m-1,5		

APPEARANCE OF PRIMARY ELEMENTS (Schaefer et al. 2009)		
Effective range 0-19		
Bone	Element	Appearance
	metacarpals	>2m
Skeletal age		>2m

Juvenile longe bone measurements (Schaefer et al. 2009)				
Bone	Measurement	L	R	Age
Clavicle	Length (mm)		59	7-12m
Scapula	Length (cm)			
	Width (cm)			
Humerus	Length (mm)		98	6m-1
Radius	Length (mm)			
Ulna	Length (mm)			
Femur	Length (mm)			
Tibia	Length (mm)			
Fibula	Length (mm)			
	Skeletal age	7m-1		





Overzichtsfoto individu in situ

## SKELETAL STATUS



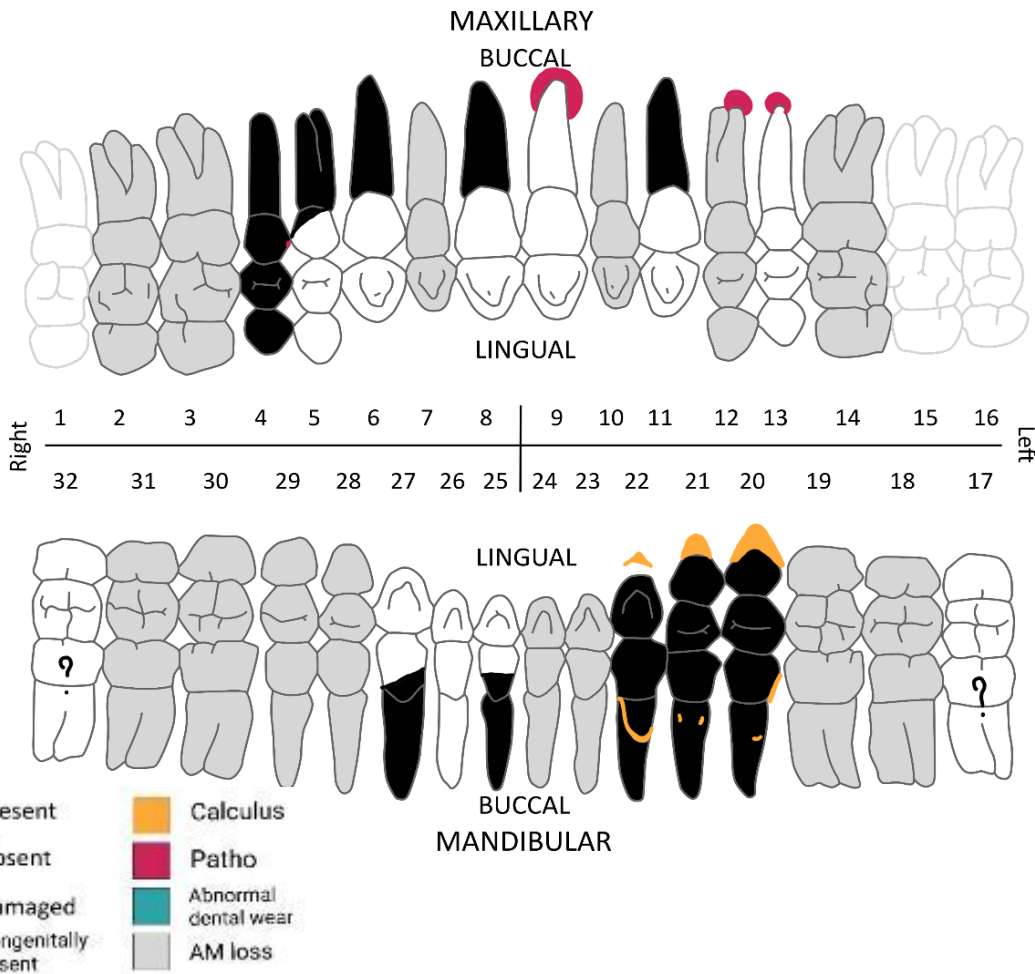


## DENTAL STATUS

MAXILLA							
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.
8	I1	P	zware slijtage	periap. Ab	PM	I1	9
7	I2	AM	B	B	AM	I2	10
6	C	P	zware slijtage	zware slijtage	P	C	11
5	Pm1	P	zware slijtage	B, periap. Ab	AM	Pm1	12
4	Pm2	P	interprox. Ca	periap. Ab	PM	Pm2	13
3	M1	AM	B	B	AM	M1	14
2	M2	AM	B		M	M2	15
1	M3	M			M	M3	16
25	I1	P	zware slijtage	B	AM	I1	24
26	I2	PM		B	AM	I2	23
27	C	P	zware slijtage	Cc++	P	C	22
28	Pm1	AM	B	Cc++	P	Pm1	21
29	Pm2	AM	B	Cc++	P	Pm2	20
30	M1	AM	B	B	AM	M1	19
31	M2	AM	B	B	AM	M2	18
32	M3	?			?	M3	17

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)			141	I
Scapula	Max glenoid width (M>29; F<26)			30,6	M
	Max glenoid length (M>36; F<34)			39,1	M
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)			49,3	M
	Epicondylar breadth (M>60.1; F<60.1)				
Femur	Max head diameter (M>48; F<43)			PATHO	
	Epicondylar breadth (M>76; F<74)	80,3	M	>77,9	M
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{32}{22} =$	1,5
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{16}{9} =$	1,8
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{15}{33} =$	0,5

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	/			
Nuchal plane/crest	/			
Parietal & frontal bossing	/			
External occipital protuberance	M?	1	2	2
Frontal inclination	/			

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	M	2	3	6
Zygomatic process	M?	1	3	3
Supraorbital ridge	M?	1	2	2
Zygomatic bone	M	2	2	4
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	M	2	3	6
Zygomatic process	M?	1	3	3
Supraorbital ridge	M?	1	2	2
Zygomatic bone	M	2	2	4
Orbit shape & margin	/			

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	M	2	3	6
Mental eminence	M	2	2	4

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M	2	1	2
Inferior margin	M?	1	1	1

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M	2	1	2
Inferior margin	M?	1	1	1

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/		3	0
Greater sciatic notch	/		3	0
Pubic arc/angle	/		2	0
Arc composé	/		2	0
Innominate bone	/		2	0
Obturator foramen	/		2	0
Ischial body	/		2	0
Iliac crest	/		1	0
Iliac fossa	/		1	0
Pelvic inlet (midline)	/		1	0

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	F?	-1	3	-3
Pubic arc/angle	M	2	2	4
Arc composé	M?	1	2	2
Innominate bone	/			
Obturator foramen	M?	1	2	2
Ischial body	M	2	2	4
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		F?
Subpubic concavity		M
ischio-pubic ramus		M



## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right	35,2	9,4	23-57

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	30-39

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	
		Surface texture	
		Microporosity	
		Macroporosity	
		Apical changes	
	0	Composite score	0
		Age range	

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Tooth wear (Brothwell 1981)	Age

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		21-34		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography	2	2
Porosity	2	3
Osteophyte formation	2	2
Total	6	7
Age	37-73	37-73

## STATURE

MALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$70,45 + 3,08 \times \text{hum}$			33,2	172,71	4,05
Radius	$79,01 + 3,78 \times \text{rad}$					4,32
Ulna	$74,05 + 3,70 \times \text{ulna}$					4,32
Femur	$61,41 + 2,38 \times \text{fem}$					3,27
Tibia	$78,62 + 2,52 \times \text{tib}$					3,27
Fibula	$71,78 + 2,68 \times \text{fib}$					3,29
Femur + tibia	$63,29 + 1,3 \times (\text{fem} + \text{tib})$					2,99



Overzichtsfoto individu in situ

## SKELETAL STATUS



## DENTAL STATUS

Dental record niet bewaard.



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left	Sex	Right	Sex
		mm		mm	
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)				
	Max glenoid length (M>36; F<34)				
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)				
Femur	Max head diameter (M>48; F<43)			41,4	F
	Epicondylar breadth (M>76; F<74)			73,1	F
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$		=	<div>/</div>
WEA mandible	$\frac{\sum Wx}{\sum W}$		=	<div>/</div>
WEA os coxae	$\frac{\sum Wx}{15}$	-21	=	<div>-1,4</div>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F	-2	3	-6
Greater sciatic notch	F?	-1	3	-3
Pubic arc/angle	F	-2	2	-4
Arc composé	F	-2	2	-4
Innominate bone	/			
Obturator foramen	F?	-1	2	-2
Ischial body	F	-2	2	-4
Iliac crest	M	2	1	2
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		F
Subpubic concavity		F?
ischio-pubic ramus		F

**AGE ESTIMATION**

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	
		Surface texture	
		Microporosity	
		Macroporosity	
		Apical changes	
	0	Composite score	0
		Age range	

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Tooth wear (Brothwell 1981)	Age

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
	Ischial tuberosity	< 18	14-20	> 16
Tibia	Proximal	< 18	14-20	> 17
Skeletal age				18-20

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		
Porosity		
Osteophyte formation		
Total	0	0
Age		

## STATURE

FEMALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$57,97 + 3,36 \times \text{hum}$					4,45
Radius	$54,93 + 4,74 \times \text{rad}$			21,2	155,42	4,24
Ulna	$57,76 + 4,27 \times \text{ulna}$					4,3
Femur	$54,10 + 2,47 \times \text{fem}$			39,1	150,68	3,72
Tibia	$61,53 + 2,90 \times \text{tib}$	33,2	157,81	33,5	158,68	3,66
Fibula	$59,61 + 2,93 \times \text{fib}$	32,8	155,71	33,4	157,47	3,57
Femur + tibia	$53,2 + 1,39 \times (\text{fem} + \text{tib})$			72,6	154,11	3,55



Overzichtsfoto individu in situ



## SKELETAL STATUS



## DENTAL STATUS

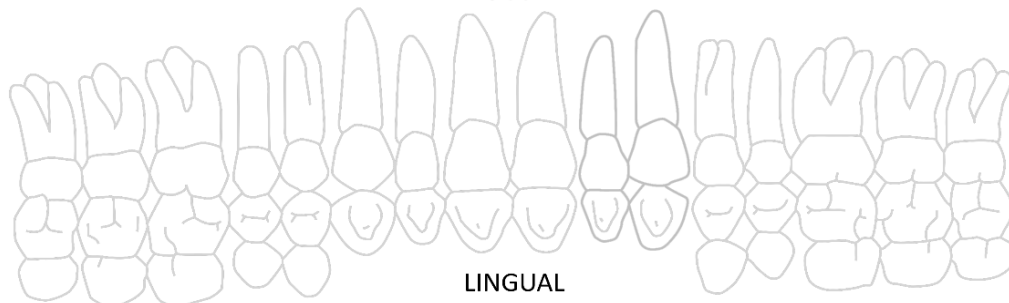
MAXILLA							
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.
8	I1	M			M	I1	9
7	I2	M			M	I2	10
6	C	M			M	C	11
5	Pm1	M			M	Pm1	12
4	Pm2	M			M	Pm2	13
3	M1	M			M	M1	14
2	M2	M			M	M2	15
1	M3	M			M	M3	16
25	I1	AM	B	B	AM	I1	24
26	I2	PM		zware slijtage tot op wortel	P	I2	23
27	C	AM	B	B	AM	C	22
28	Pm1	AM	B	B	AM	Pm1	21
29	Pm2	AM	B	B	AM	Pm2	20
30	M1	AM	B	B	AM	M1	19
31	M2	AM	B	B	AM	M2	18
32	M3	AM	B	B	AM	M3	17
MANDIBLE							

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch

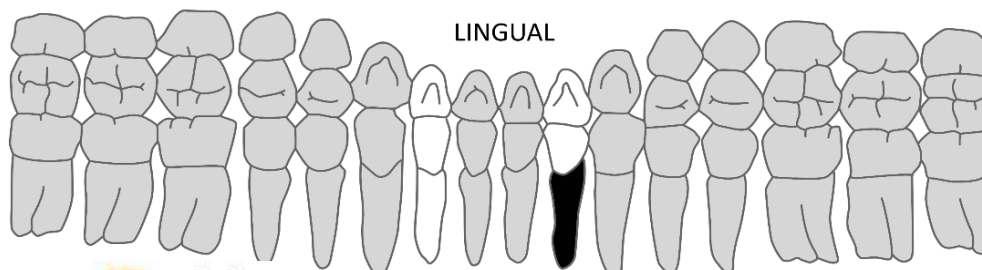
### MAXILLARY

#### BUCCAL



#### LINGUAL

Right 1 2 3 4 5 6 7 8 | 9 10 11 12 13 14 15 16 Left  
32 31 30 29 28 27 26 25 | 24 23 22 21 20 19 18 17



#### LINGUAL

#### BUCCAL

### MANDIBULAR



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)	143	I	147,5	I
Scapula	Max glenoid width (M>29; F<26)	27,2	I	25,8	F
	Max glenoid length (M>36; F<34)	35,3	I	36,8	M
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)	43,4	F	42,3	F
	Epicondylar breadth (M>60.1; F<60.1)	60,3	M	61,6	M
Femur	Max head diameter (M>48; F<43)				
	Epicondylar breadth (M>76; F<74)	76,6	M		
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{-9}{20} =$	<b>-0,5</b>
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{-16}{9} =$	<b>-1,8</b>
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{-46}{31} =$	<b>-1,5</b>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	M?	1	3	3
Nuchal plane/crest	F?	-1	3	-3
Parietal & frontal bossing	M?	1	2	2
External occipital protuberance	F	-2	2	-4
Frontal inclination	M?	1	1	1

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	/			
Zygomatic process	/			
Supraorbital ridge	F?	-1	2	-2
Zygomatic bone	/			
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	F	-2	3	-6
Zygomatic process	/			
Supraorbital ridge	F?	-1	2	-2
Zygomatic bone	M?	1	2	2
Orbit shape & margin	/			

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	F	-2	3	-6
Mental eminence	F	-2	2	-4

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	F	-2	1	-2
Inferior margin	F?	-1	1	-1

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	F	-2	1	-2
Inferior margin	F?	-1	1	-1

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F	-2	3	-6
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	F?	-1	2	-2
Arc composé	/			
Innominate bone	/			
Obturator foramen	F?	-1	2	-2
Ischial body	F?	-1	2	-2
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F	-2	3	-6
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	F?	-1	2	-2
Arc composé	F	-2	2	-4
Innominate bone	F?	-1	2	-2
Obturator foramen	F?	-1	2	-2
Ischial body	F?	-1	2	-2
Iliac crest	F?	-1	1	-1
Iliac fossa	F?	-1	1	-1
Pelvic inlet (midline)	F	-2	1	-2

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc	F?	F?
Subpubic concavity	M?	/
ischio-pubic ramus	I	I

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left	60	12,4	42-87
	Right	60	12,4	42-87

Pubic symphysis (Todd 1970)	Side	Range
	Left	44-50
	Right	44-50

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	60+
	Right	60+

Auricular surface (B & C 2002)	Left	Traits	Right
	5	Transverse org.	5
	5	Surface texture	5
	3	Microporosity	3
	3	Macroporosity	3
	1	Apical changes	1
	17	Composite score	17
	53-92	Age range	53-92

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Tooth wear (Brothwell 1981)	Age



Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>22		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography	2	4
Porosity	3	4
Osteophyte formation	2	3
Total	7	11
Age	41-88	63-96

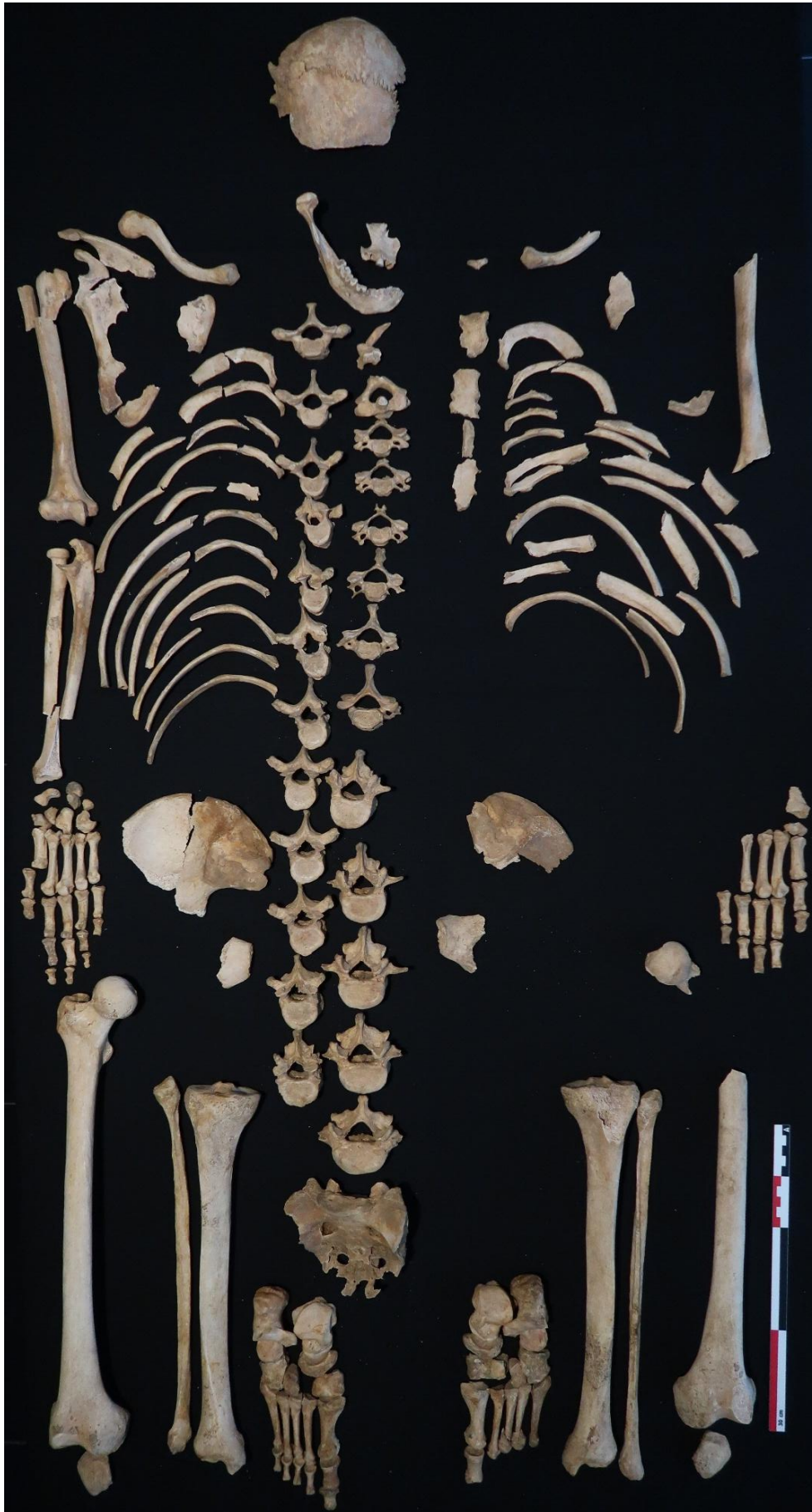
## STATURE

FEMALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$57,97 + 3,36 \times \text{hum}$	33,3	169,86	33,35	170,03	4,45
Radius	$54,93 + 4,74 \times \text{rad}$	25,7	176,75			4,24
Ulna	$57,76 + 4,27 \times \text{ulna}$					4,3
Femur	$54,10 + 2,47 \times \text{fem}$					3,72
Tibia	$61,53 + 2,90 \times \text{tib}$					3,66
Fibula	$59,61 + 2,93 \times \text{fib}$					3,57
Femur + tibia	$53,2 + 1,39 \times (\text{fem} + \text{tib})$					3,55



Overzichtsfoto individu in situ

## SKELETAL STATUS



## DENTAL STATUS

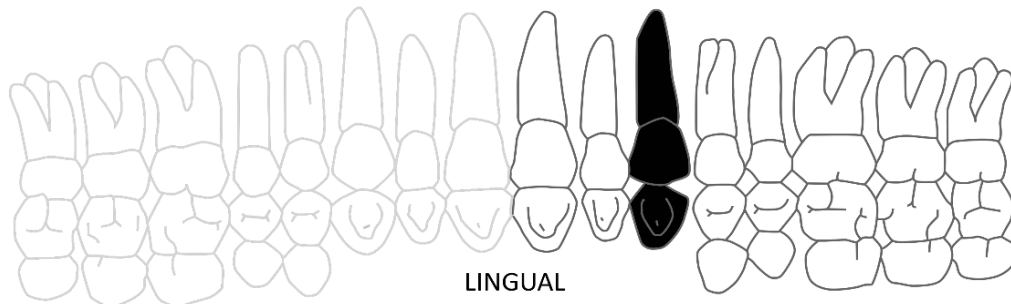
MAXILLA							
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.
8	I1	M			PM	I1	9
7	I2	M			PM	I2	10
6	C	M			P	C	11
5	Pm1	M			PM	Pm1	12
4	Pm2	M			PM	Pm2	13
3	M1	M			M	M1	14
2	M2	M			M	M2	15
1	M3	M			M	M3	16
25	I1	PM			PM	I1	24
26	I2	P	Cc++		PM	I2	23
27	C	P	Cc+		PM	C	22
28	Pm1	P			M	Pm1	21
29	Pm2	P			M	Pm2	20
30	M1	P	Cc++, Cc is groen verkleurd		M	M1	19
31	M2	P	Cc++, Cc is groen verkleurd, occl. Ca		M	M2	18
32	M3	AM	B		M	M3	17
MANDIBLE							

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch

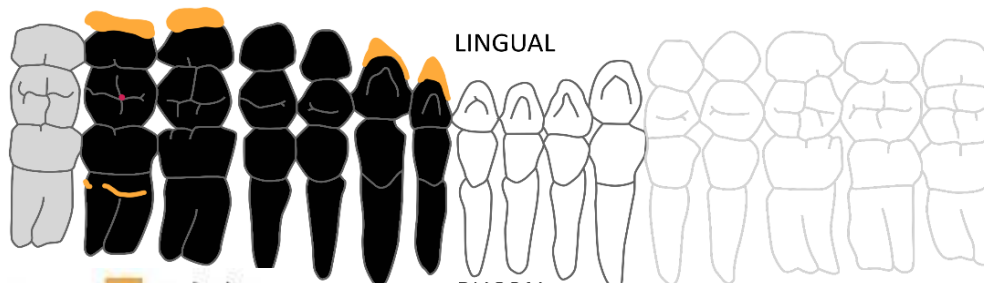
### MAXILLARY

#### BUCCAL



#### LINGUAL

Right 1 2 3 4 5 6 7 8 | 9 10 11 12 13 14 15 16 Left  
32 31 30 29 28 27 26 25 | 24 23 22 21 20 19 18 17



#### LINGUAL

#### BUCCAL

### MANDIBULAR

	Present		Calculus
	Absent		Patho
	Damaged		Abnormal dental wear
	Congenitally absent		AM loss



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)			135	F
Scapula	Max glenoid width (M>29; F<26)				
	Max glenoid length (M>36; F<34)				
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)			56,7	F
Femur	Max head diameter (M>48; F<43)			44	I
	Epicondylar breadth (M>76; F<74)	75,9	I	75,5	I
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{-2}{8} =$	$-0,3$
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{6}{7} =$	$0,9$
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{-12}{15} =$	$-0,8$

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	/			
Nuchal plane/crest	M?	1	3	3
Parietal & frontal bossing	/			
External occipital protuberance	F?	-1	2	-2
Frontal inclination	/			

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	/			
Zygomatic process	/			
Supraorbital ridge	/			
Zygomatic bone	/			
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	F?	-1	3	-3
Zygomatic process	/			
Supraorbital ridge	/			
Zygomatic bone	/			
Orbit shape & margin	/			



<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	M?	1	3	3
Mental eminence	M?	1	2	2

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	/			
Inferior margin	/			

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	F?	-1	1	-1
Inferior margin	M	2	1	2

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F?	-1	3	-3
Greater sciatic notch	/			
Pubic arc/angle	F?	-1	2	-2
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F?	-1	3	-3
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	/			
Arc composé	M	2	2	4
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	F?	-1	1	-1
Iliac fossa	F?	-1	1	-1
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc	F	F?
Subpubic concavity	F	/
ischio-pubic ramus	F	/

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left	38,2	10,9	26-70
	Right	38,2	10,9	26-70

Pubic symphysis (Todd 1970)	Side	Range
	Left	35-39
	Right	35-39

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	30-34
	Right	30-34

Auricular surface (B & C 2002)	Left	Traits	Right
	3	Transverse org.	3
	3	Surface texture	3
	2	Microporosity	2
	1	Macroporosity	1
	1	Apical changes	1
	10	Composite score	10
	16-65	Age range	16-65

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)

Tooth wear (Brothwell 1981)	Age
	25-35

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		22-40		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography	2	2
Porosity	3	2
Osteophyte formation	2	1
Total	7	5
Age	41-88	35-63

## STATURE

FEMALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$57,97 + 3,36 \times \text{hum}$					4,45
Radius	$54,93 + 4,74 \times \text{rad}$					4,24
Ulna	$57,76 + 4,27 \times \text{ulna}$					4,3
Femur	$54,10 + 2,47 \times \text{fem}$			46,9	169,94	3,72
Tibia	$61,53 + 2,90 \times \text{tib}$	37,9	171,44	37,05	168,98	3,66
Fibula	$59,61 + 2,93 \times \text{fib}$	38	170,95	37,5	169,49	3,57
Femur + tibia	$53,2 + 1,39 \times (\text{fem} + \text{tib})$			83,95	169,89	3,55



Overzichtsfoto individu in situ

## SKELETAL STATUS



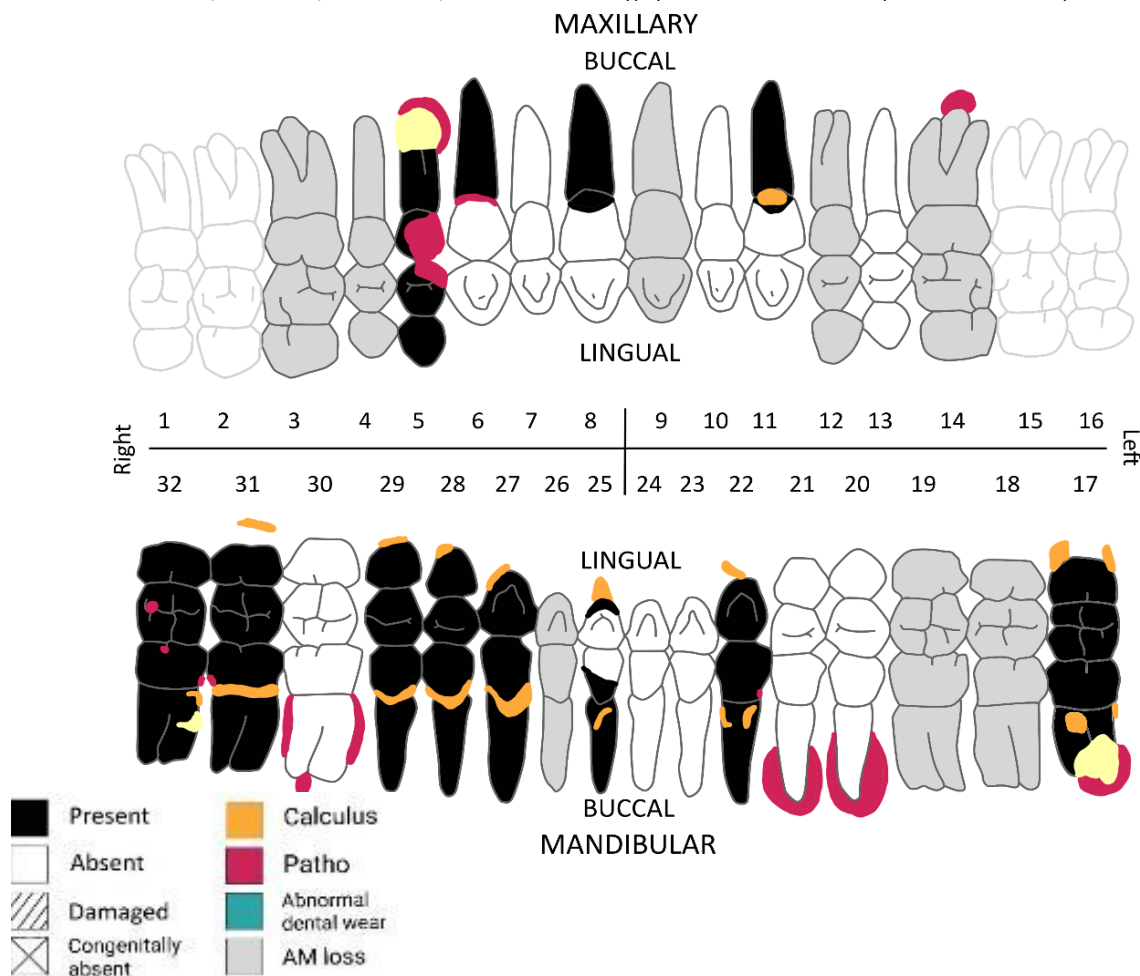


## DENTAL STATUS

MAXILLA							
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.
8	I1	P	zwarte slijtage	B	AM	I1	9
7	I2	PM			PM	I2	10
6	C	P	occl. Ca	Cc+	P	C	11
5	Pm1	P	interprox. Ca, periap. Ab, Hc	B	AM	Pm1	12
4	Pm2	AM	B		PM	Pm2	13
3	M1	AM	B	B, periap. Ab	AM	M1	14
2	M2	M			M	M2	15
1	M3	M			M	M3	16
25	I1	P	CC++		PM	I1	24
26	I2	AM	B		PM	I2	23
27	C	P	Cc++	Cc++, interprox. Ca	P	C	22
28	Pm1	P	CC++	periap. Ab	PM	Pm1	21
29	Pm2	P	CC++	periap. Ab	PM	Pm2	20
30	M1	PM	periap./period. Ab	B	AM	M1	19
31	M2	P	Cc++, interprox. Ca	B	AM	M2	18
32	M3	P	2 occl. En 1 bucc. Ca, Cc+, Hc	Cc++, periap. Ab, Hc	P	M3	17
MANDIBLE							

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)	128	F	129	F
Scapula	Max glenoid width (M>29; F<26)				
	Max glenoid length (M>36; F<34)				
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)	40,6	F		
	Epicondylar breadth (M>60.1; F<60.1)				
Femur	Max head diameter (M>48; F<43)				
	Epicondylar breadth (M>76; F<74)			66,7	F
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{-10}{20} =$	$-0,5$
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{18}{9} =$	$2,0$
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{-9}{11} =$	$-0,8$

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	/			
Nuchal plane/crest	M?	1	3	3
Parietal & frontal bossing	/			
External occipital protuberance	M?	1	2	2
Frontal inclination	/			

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	F	-2	3	-6
Zygomatic process	M?	1	3	3
Supraorbital ridge	/			
Zygomatic bone	F	-2	2	-4
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	F	-2	3	-6
Zygomatic process	/			
Supraorbital ridge	M?	1	2	2
Zygomatic bone	F	-2	2	-4
Orbit shape & margin	/			

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	M	2	3	6
Mental eminence	M	2	2	4

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M	2	1	2
Inferior margin	M	2	1	2

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M	2	1	2
Inferior margin	M	2	1	2

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F?	-1	3	-3
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	/			
Arc composé	F	-2	2	-4
Innominate bone	/			
Obturator foramen	/			
Ischial body	M?	1	2	2
Iliac crest	M	2	1	2
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	30-34

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	1
		Surface texture	3
		Microporosity	2
		Macroporosity	1
		Apical changes	1
	0	Composite score	8
		Age range	21-38

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)
	closed	>21

Tooth wear (Brothwell 1981)	Age

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>22		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		
Porosity		
Osteophyte formation		
Total	0	0
Age		

## STATURE

FEMALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$57,97 + 3,36 \times \text{hum}$					4,45
Radius	$54,93 + 4,74 \times \text{rad}$					4,24
Ulna	$57,76 + 4,27 \times \text{ulna}$					4,3
Femur	$54,10 + 2,47 \times \text{fem}$			39,85	152,53	3,72
Tibia	$61,53 + 2,90 \times \text{tib}$	32	154,33	31,7	153,46	3,66
Fibula	$59,61 + 2,93 \times \text{fib}$					3,57
Femur + tibia	$53,2 + 1,39 \times (\text{fem} + \text{tib})$			71,55	152,65	3,55





Overzichtsfoto individu in situ



## SKELETAL STATUS



## DENTAL STATUS

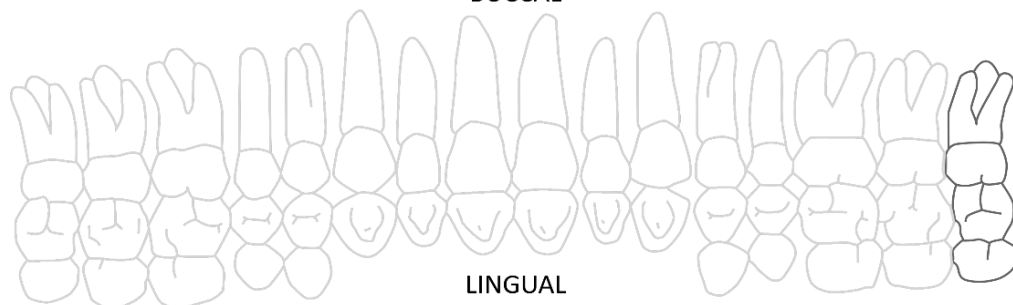
MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	M			M	I1	9	
7	I2	M			M	I2	10	
6	C	M			M	C	11	
5	Pm1	M			M	Pm1	12	
4	Pm2	M			M	Pm2	13	
3	M1	M			M	M1	14	
2	M2	M			M	M2	15	
1	M3	M			PM	M3	16	
25	I1	PM			PM	I1	24	
26	I2	P	LEH	LEH	P	I2	23	
27	C	P	LEH	LEH	P	C	22	
28	Pm1	P	interprox. Ca		P	Pm1	21	
29	Pm2	P	interprox. Ca, Cc+		P	Pm2	20	
30	M1	AM	B	B	AM	M1	19	
31	M2	P		B	AM	M2	18	
32	M3	PM			P	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch

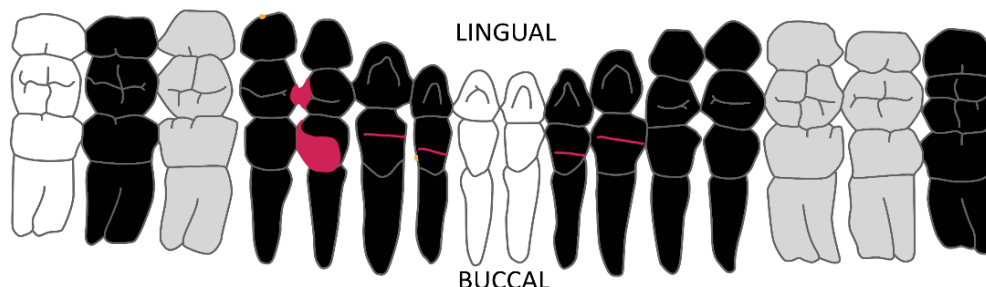
### MAXILLARY

#### BUCCAL



#### LINGUAL

Right 1 2 3 4 5 6 7 8 | 9 10 11 12 13 14 15 16 Left  
32 31 30 29 28 27 26 25 | 24 23 22 21 20 19 18 17



#### LINGUAL

#### BUCCAL

### MANDIBULAR



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)	136,5	PATHO		
Scapula	Max glenoid width (M>29; F<26)	23,3	F	24,6	F
	Max glenoid length (M>36; F<34)	35,1	I	34,6	I
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)	56,8	F		
Femur	Max head diameter (M>48; F<43)				
	Epicondylar breadth (M>76; F<74)				
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS

WEA cranium	$\frac{\Sigma Wx}{\Sigma W}$	$\frac{-11}{12} =$	-0,9
WEA mandible	$\frac{\Sigma Wx}{\Sigma W}$	$\frac{-5}{9} =$	-0,6
WEA os coxae	$\frac{\Sigma Wx}{\Sigma W}$	$\frac{-13}{8} =$	-1,6

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	F	-2	3	-6
Nuchal plane/crest	/			
Parietal & frontal bossing	I	0	2	0
External occipital protuberance	/			
Frontal inclination	M?	1	1	1

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	/			
Zygomatic process	/			
Supraorbital ridge	F?	-1	2	-2
Zygomatic bone	/			
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	/			
Zygomatic process	/			
Supraorbital ridge	F?	-1	2	-2
Zygomatic bone	F?	-1	2	-2
Orbit shape & margin	/			

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	F?	-1	3	-3
Mental eminence	I	0	2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	F	-2	1	-2
Inferior margin	M?	1	1	1

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	F	-2	1	-2
Inferior margin	M?	1	1	1

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	F?	-1	3	-3
Pubic arc/angle	/			
Arc composé	F	-2	2	-4
Innominate bone	/			
Obturator foramen	/			
Ischial body	F	-2	2	-4
Iliac crest	F	-2	1	-2
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		



## AGE ESTIMATION

Dental eruption and mineralization 1978; WEA 1980)	(Ubelaker	Dental age

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Spheno occipital synchondrosis	< 18	11-18	> 11
Scapula	Acromiom	< 20	15-20	> 15
	Coraco-Glenoid	< 16	14-18	> 16
	Medial border	< 23	19-23	> 19
	Inferior angle	< 21	17-22	> 17
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Humerus	Proximal	< 20	14-21	> 16
	Medial	< 18	13-18	> 13
	Distal	< 15	11-18	> 12
Ulna	Proximal	< 16	12-18	> 12
	Distal	< 20	15-20	> 15
Radius	Proximal	< 18	12-18	> 13
	Distal	< 19	14-20	> 15
Hand	MC's and phalanges	< 17	11-18	> 12
Sacrum	Auricular surface	< 21	15-21	> 17
	S1-S2 bodies	< 27	14-30	> 21
	S1-S2 alae	< 20	11-27	> 19
	S2-S5 bodies	< 20	12-28	> 19
	S2-S5 alae	< 16	10-21	> 13
Pelvis	Iliac crest	< 20	14-22	> 18
	Ant inf iliac spine	< 18	14-18	> 15
	Ischial tuberosity	< 18	14-20	> 16
Femur	Head	< 18	14-19	> 14
	Greater trochanter	< 18	14-19	> 14
	Lesser trochanter	< 18	16-19	> 14
	Distal	< 19	14-20	> 17
Tibia	Proximal	< 18	14-20	> 17
	Distal	< 18	14-18	> 15
Fibula	Proximal	< 19	14-20	> 15
	Distal	< 18	14-18	> 15
Foot	Calcaneus	< 20	10-20	> 10
	MT's and phalanges	< 17	11-16	> 11
Vertebrae	Annular Rings	< 21	14-23	> 18
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	Skeletal age		17-20	

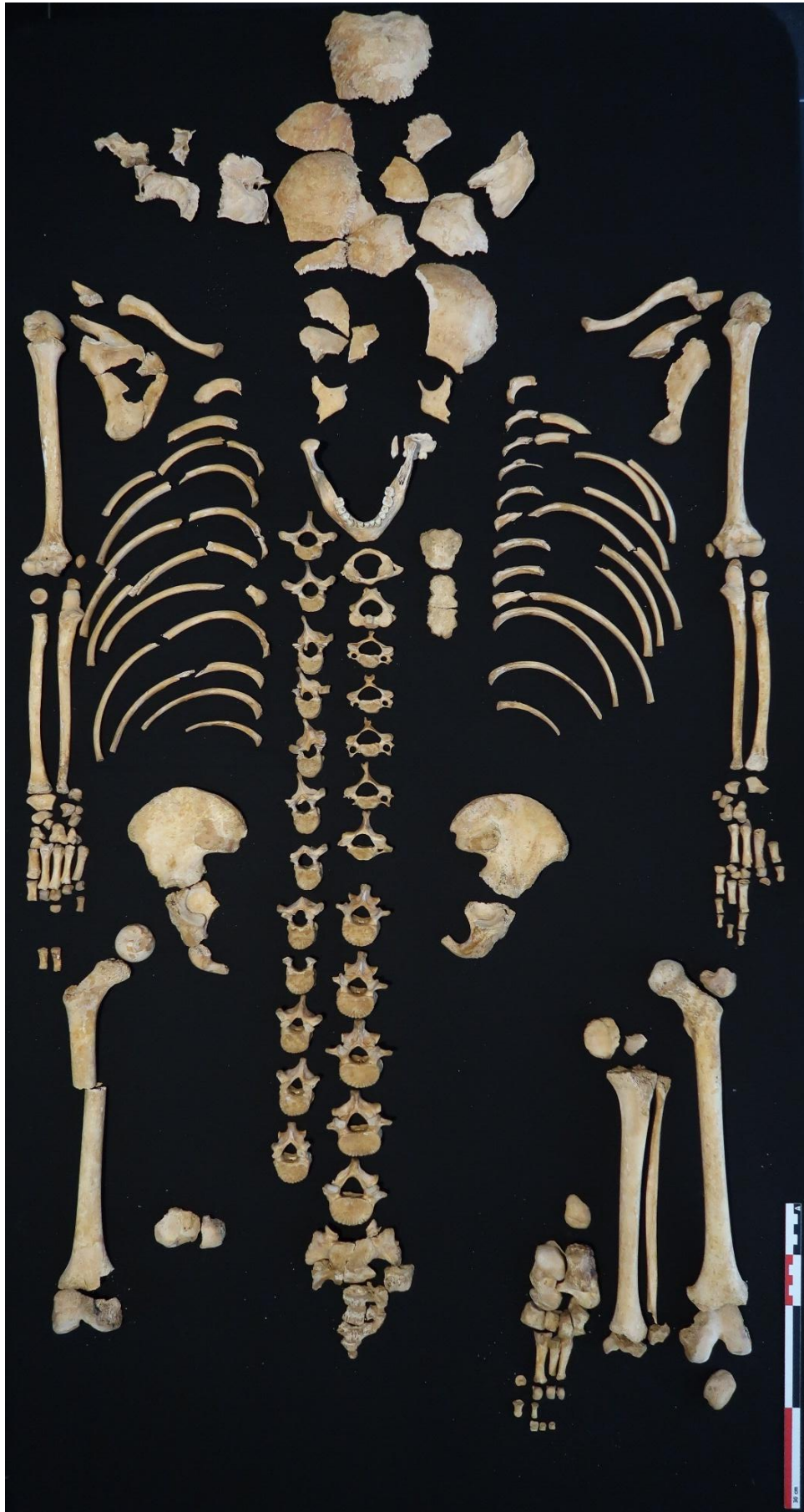
## STATURE

Geen complete lange pijpbeenderen.



Overzichtsfoto individu in situ

## SKELETAL STATUS



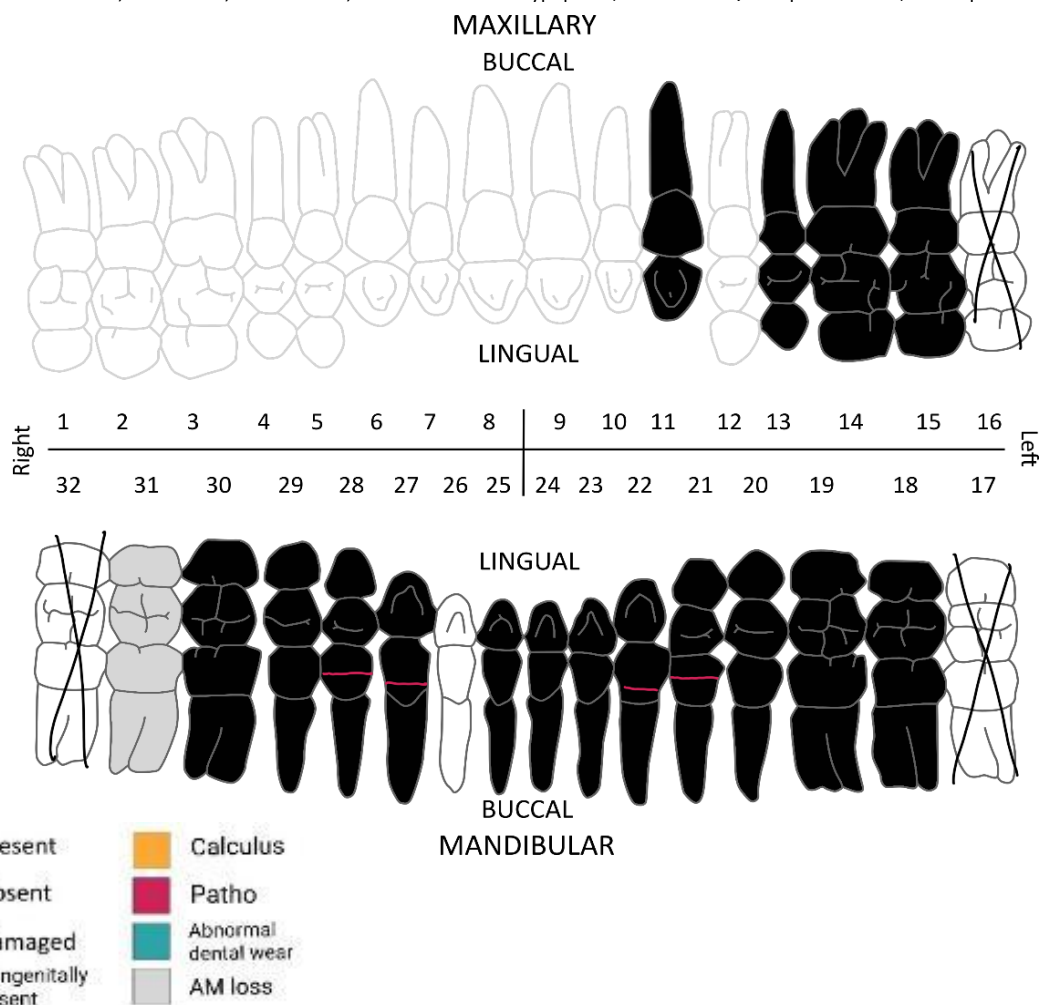


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	M			M	I1	9	
7	I2	M			M	I2	10	
6	C	M			P	C	11	
5	Pm1	M			M	Pm1	12	
4	Pm2	M			P	Pm2	13	
3	M1	M			P	M1	14	
2	M2	M			P	M2	15	
1	M3	M			C	M3	16	
25	I1	P			P	I1	24	
26	I2	PM			P	I2	23	
27	C	P	LEH	LEH	P	C	22	
28	Pm1	P	LEH	LEH	P	Pm1	21	
29	Pm2	P			P	Pm2	20	
30	M1	P			P	M1	19	
31	M2	AM	B		P	M2	18	
32	M3	C			C	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## AGE ESTIMATION

Dental eruption and mineralization 1978; WEA 1980)	(Ubelaker	Dental age
		>12,5

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Spheno occipital synchondrosis	< 18	11-18	> 11
Scapula	Acromiom	< 20	15-20	> 15
	Coraco-Glenoid	< 16	14-18	> 16
	Medial border	< 23	19-23	> 19
	Inferior angle	< 21	17-22	> 17
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Humerus	Proximal	< 20	14-21	>16
	Medial	< 18	13-18	> 13
	Distal	< 15	11-18	> 12
Ulna	Proximal	< 16	12-18	> 12
	Distal	< 20	15-20	> 15
Radius	Proximal	< 18	12-18	> 13
	Distal	< 19	14-20	> 15
Hand	MC's and phalanges	< 17	11-18	> 12
Sacrum	Auricular surface	< 21	15-21	> 17
	S1-S2 bodies	< 27	14-30	> 21
	S1-S2 alae	< 20	11-27	> 19
	S2-S5 bodies	< 20	12-28	> 19
	S2-S5 alae	< 16	10-21	> 13
Pelvis	Illiic crest	< 20	14-22	> 18
	Ant inf iliac spine	< 18	14-18	> 15
	Ischial tuberosity	< 18	14-20	> 16
Femur	Head	< 18	14-19	> 14
	Greater trochanter	< 18	14-19	> 14
	Lesser trochanter	< 18	16-19	> 14
	Distal	< 19	14-20	> 17
Tibia	Proximal	< 18	14-20	> 17
	Distal	< 18	14-18	> 15
Fibula	Proximal	< 19	14-20	> 15
	Distal	< 18	14-18	> 15
Foot	Calcaneus	< 20	10-20	> 10
	MT's and phalanges	< 17	11-16	> 11
Vertebrae	Annular Rings	< 21	14-23	> 18
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
Skeletal age		14-16		



Juvenile longe bone measurements (Schaefer et al. 2009)				
Bone	Measurement	L	R	Age
Clavicle	Length (mm)	115	111	11-13
Scapula	Length (cm)			
	Width (cm)			
Humerus	Length (mm)	236		9-10
Radius	Length (mm)		179	9-11
Ulna	Length (mm)			
Femur	Length (mm)	321		8-9
Tibia	Length (mm)			
Fibula	Length (mm)			
	Skeletal age	9-13		



# SKELETFORMULIER

Site: 2023-0164 Boutersem O.L.V.H-kerk

Waarnemer: Nandy Dolman

IND: 65

Datum: 28.04.2025



Overzichtsfoto individu in situ

## SKELETAL STATUS



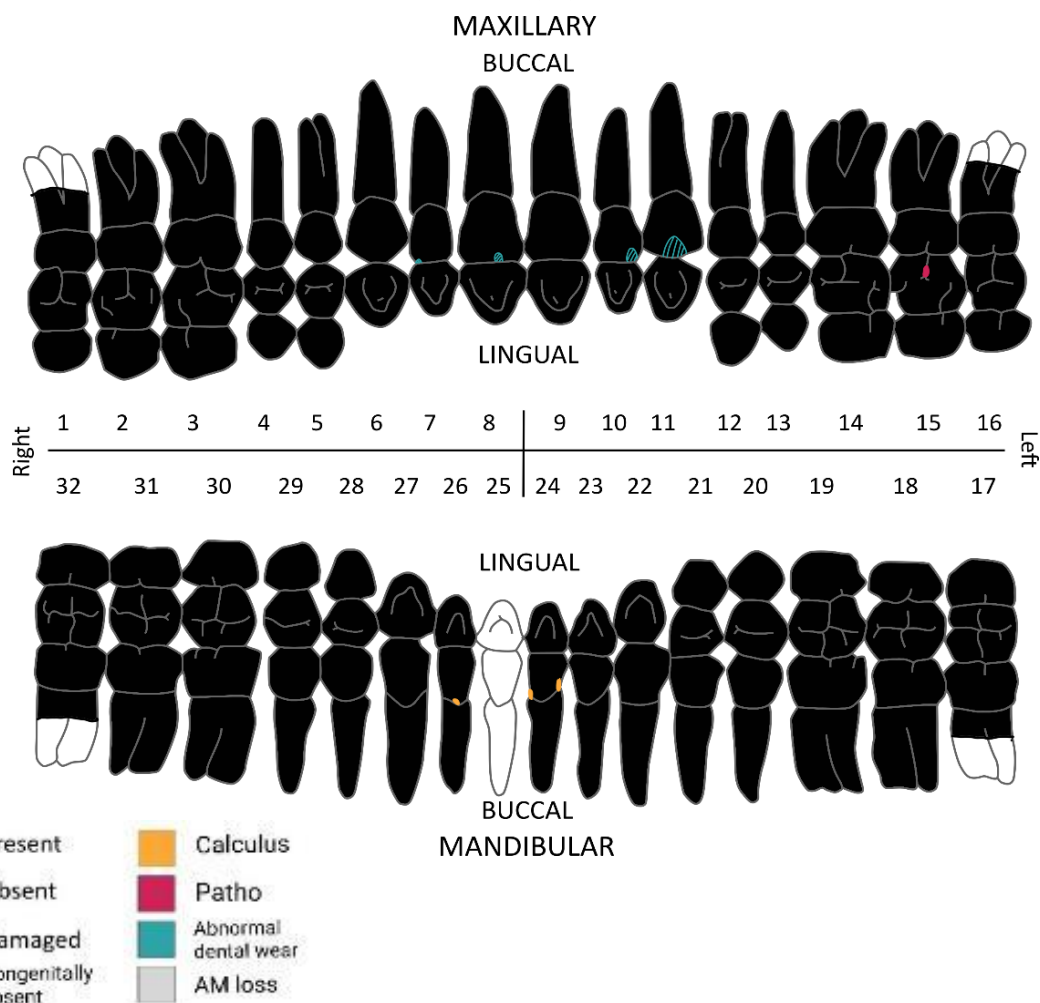


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	P	chipping		P	I1	9	
7	I2	P	chipping	chipping	P	I2	10	
6	C	P		chipping	P	C	11	
5	Pm1	P			P	Pm1	12	
4	Pm2	P			P	Pm2	13	
3	M1	P			P	M1	14	
2	M2	P		occl. Ca	P	M2	15	
1	M3	E			E	M3	16	
25	I1	PM		Cc+	P	I1	24	
26	I2	P	Cc+		P	I2	23	
27	C	P			P	C	22	
28	Pm1	P			P	Pm1	21	
29	Pm2	P			P	Pm2	20	
30	M1	P			P	M1	19	
31	M2	P			P	M2	18	
32	M3	U			U	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## AGE ESTIMATION

Dental eruption and mineralization 1978; WEA 1980)	(Ubelaker	Dental age
		12,5-17,5

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Spheno occipital synchondrosis	< 18	11-18	> 11
Scapula	Acromiom	< 20	15-20	> 15
	Coraco-Glenoid	< 16	14-18	> 16
	Medial border	< 23	19-23	> 19
	Inferior angle	< 21	17-22	> 17
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Humerus	Proximal	< 20	14-21	> 16
	Medial	< 18	13-18	> 13
	Distal	< 15	11-18	> 12
Ulna	Proximal	< 16	12-18	> 12
	Distal	< 20	15-20	> 15
Radius	Proximal	< 18	12-18	> 13
	Distal	< 19	14-20	> 15
Hand	MC's and phalanges	< 17	11-18	> 12
Sacrum	Auricular surface	< 21	15-21	> 17
	S1-S2 bodies	< 27	14-30	> 21
	S1-S2 alae	< 20	11-27	> 19
	S2-S5 bodies	< 20	12-28	> 19
	S2-S5 alae	< 16	10-21	> 13
Pelvis	Iliac crest	< 20	14-22	> 18
	Ant inf iliac spine	< 18	14-18	> 15
	Ischial tuberosity	< 18	14-20	> 16
Femur	Head	< 18	14-19	> 14
	Greater trochanter	< 18	14-19	> 14
	Lesser trochanter	< 18	16-19	> 14
	Distal	< 19	14-20	> 17
Tibia	Proximal	< 18	14-20	> 17
	Distal	< 18	14-18	> 15
Fibula	Proximal	< 19	14-20	> 15
	Distal	< 18	14-18	> 15
Foot	Calcaneus	< 20	10-20	> 10
	MT's and phalanges	< 17	11-16	> 11
Vertebrae	Annular Rings	< 21	14-23	> 18
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
Skeletal age		11-16		



Juvenile longe bone measurements (Schaefer et al. 2009)				
Bone	Measurement	L	R	Age
Clavicle	Length (mm)			
Scapula	Length (cm)			
	Width (cm)			
Humerus	Length (mm)	265		11-13
Radius	Length (mm)			
Ulna	Length (mm)			
Femur	Length (mm)			
Tibia	Length (mm)			
Fibula	Length (mm)			
	Skeletal age		11-13	



Overzichtsfoto individu in situ

## SKELETAL STATUS

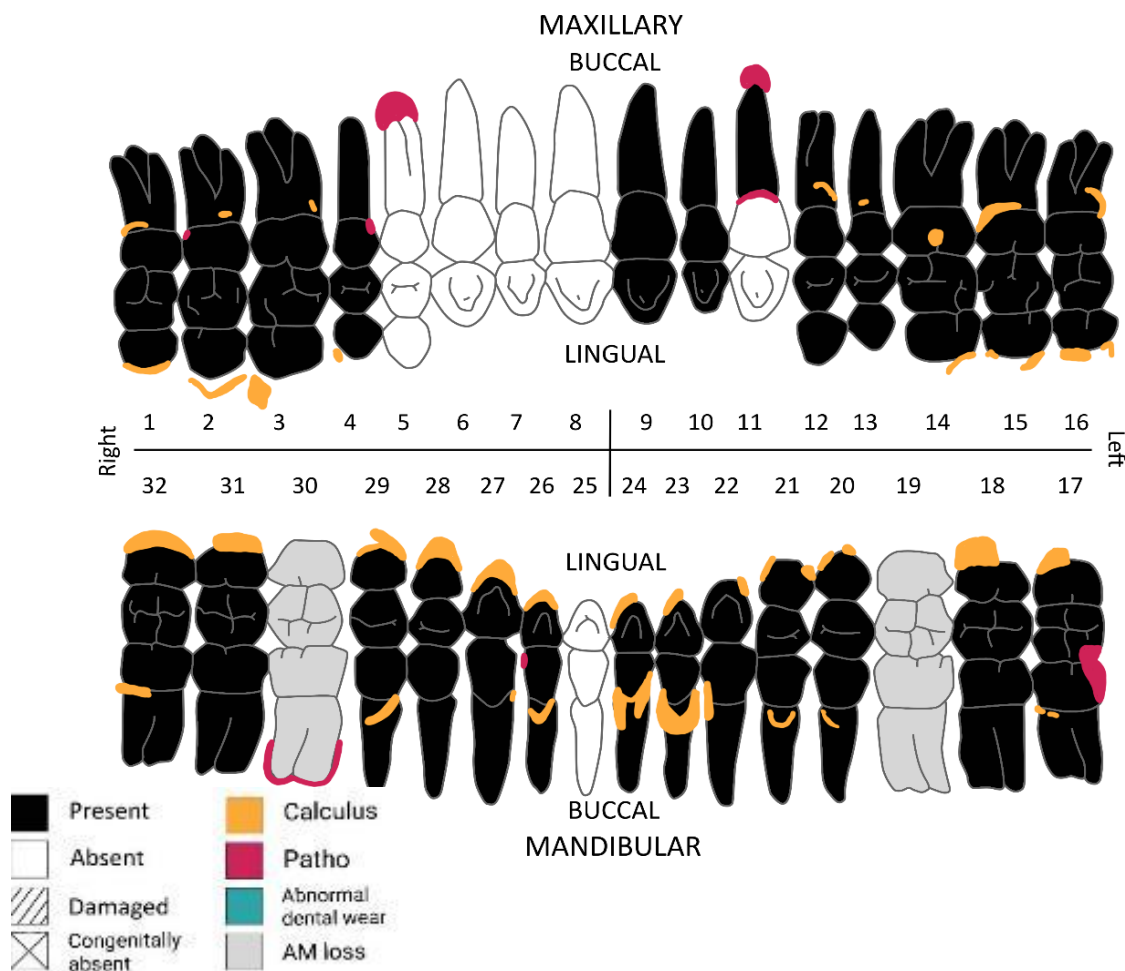


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	PM			P	I1	9	
7	I2	PM			P	I2	10	
6	C	PM		periap. Ab, occl. Ca	P	C	11	
5	Pm1	PM	periap. Ab	Cc+	P	Pm1	12	
4	Pm2	P	interprox. Ca, Cc+	Cc+	P	Pm2	13	
3	M1	P	Cc++	Cc+	P	M1	14	
2	M2	P	Cc+, interprox. Ca	Cc++	P	M2	15	
1	M3	P	Cc+	Cc++	P	M3	16	
25	I1	PM		Cc++	P	I1	24	
26	I2	P	Cc++, interprox. Ca	Cc++	P	I2	23	
27	C	P	Cc++	Cc+	P	C	22	
28	Pm1	P	Cc++	Cc++	P	Pm1	21	
29	Pm2	P	Cc++	Cc+	P	Pm2	20	
30	M1	AM	B, periap. Ab	B	AM	M1	19	
31	M2	P	Cc++	Cc++	P	M2	18	
32	M3	P	Cc++	Cc++, interprox. Ca	P	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)			125	F
Scapula	Max glenoid width (M>29; F<26)			24,3	F
	Max glenoid length (M>36; F<34)			34,5	I
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)			44,9	F
	Epicondylar breadth (M>60.1; F<60.1)	56,9	F		
Femur	Max head diameter (M>48; F<43)			43	F
	Epicondylar breadth (M>76; F<74)			75,2	F
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{-20}{28} =$	$-0,7$
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{-7}{9} =$	$-0,8$
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{-7}{12} =$	$-0,6$

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	F?	-1	3	-3
Nuchal plane/crest	M?	1	3	3
Parietal & frontal bossing	F?	-1	2	-2
External occipital protuberance	F	-2	2	-4
Frontal inclination	F?	-1	1	-1

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	F?	-1	3	-3
Zygomatic process	/			
Supraorbital ridge	M?	1	2	2
Zygomatic bone	F	-2	2	-4
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	F?	-1	3	-3
Zygomatic process	F?	-1	3	-3
Supraorbital ridge	M?	1	2	2
Zygomatic bone	F	-2	2	-4
Orbit shape & margin	/			



<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	F?	-1	3	-3
Mental eminence	F	-2	2	-4

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	F?	-1	1	-1
Inferior margin	M?	1	1	1

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	F?	-1	1	-1
Inferior margin	M?	1	1	1

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F?	-1	3	-3
Greater sciatic notch	F?	-1	3	-3
Pubic arc/angle	/			
Arc composé	F?	-1	2	-2
Innominate bone	/			
Obturator foramen	/			
Ischial body	M	2	2	4
Iliac crest	F?	-1	1	-1
Iliac fossa	F	-2	1	-2
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		F
Subpubic concavity		F?
ischio-pubic ramus		F

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	50-59

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	4
		Surface texture	5
		Microporosity	1
		Macroporosity	3
		Apical changes	1
	0	Composite score	14
		Age range	29-88

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)
	closed	>21

Tooth wear (Brothwell 1981)	Age
	25-45

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>22		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography	2	2
Porosity	2	3
Osteophyte formation	2	2
Total	6	7
Age	37-73	37-73

## STATURE

FEMALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$57,97 + 3,36 \times \text{hum}$					4,45
Radius	$54,93 + 4,74 \times \text{rad}$					4,24
Ulna	$57,76 + 4,27 \times \text{ulna}$					4,3
Femur	$54,10 + 2,47 \times \text{fem}$			41,4	156,36	3,72
Tibia	$61,53 + 2,90 \times \text{tib}$			33,8	159,55	3,66
Fibula	$59,61 + 2,93 \times \text{fib}$					3,57
Femur + tibia	$53,2 + 1,39 \times (\text{fem} + \text{tib})$			75,2	157,73	3,55



Overzichtsfoto individu in situ

## SKELETAL STATUS



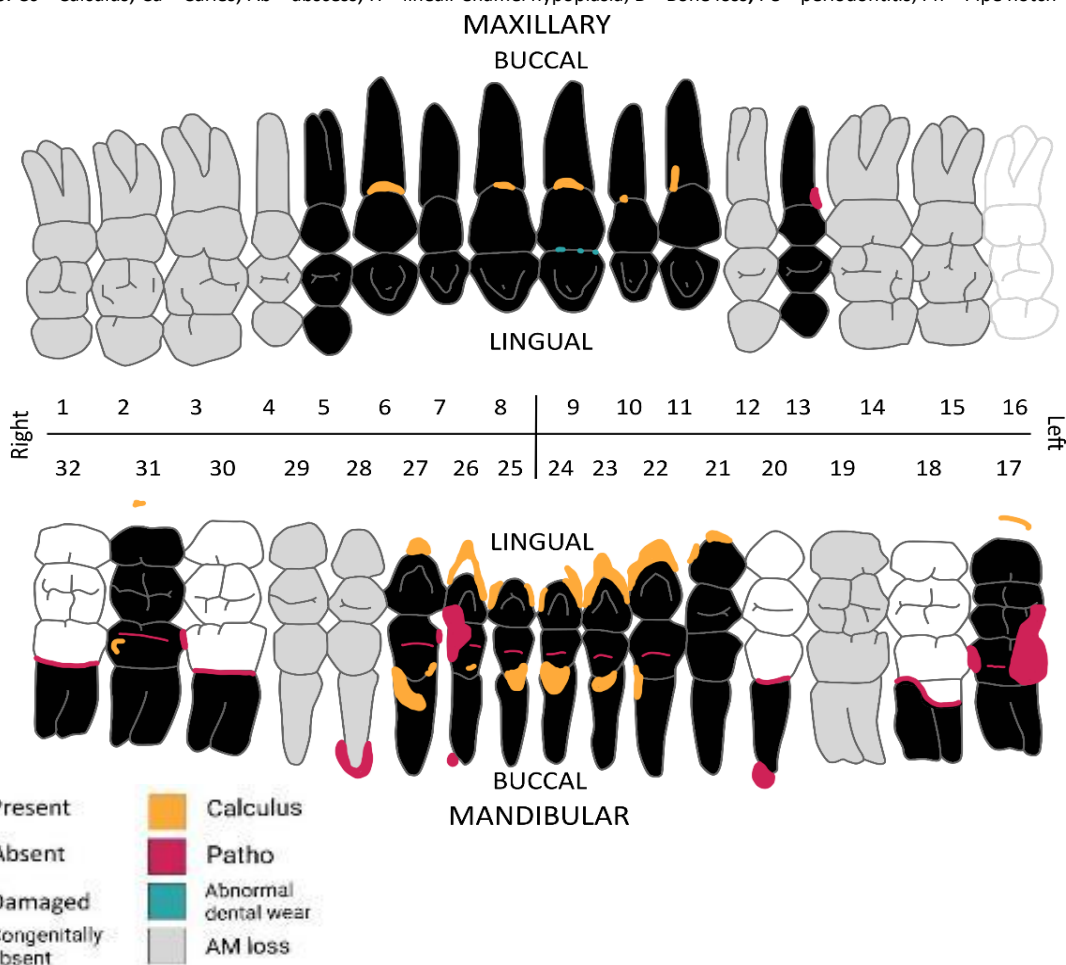


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	P	Cc+, LEH	Cc+, chipping, LEH	P	I1	9	
7	I2	P	LEH	Cc+, LeH	P	I2	10	
6	C	P	Cc+, LEH	Cc+, LEH	P	C	11	
5	Pm1	P		B	AM	Pm1	12	
4	Pm2	AM	B	interprox. Ca	P	Pm2	13	
3	M1	AM	B	B	AM	M1	14	
2	M2	AM	B	B	AM	M2	15	
1	M3	AM	B		M	M3	16	
25	I1	P	Cc++, LEH	Cc++, LEH	P	I1	24	
26	I2	P	Cc++, LEH, interprox. Ca	Cc++, LEH	P	I2	23	
27	C	P	Cc++, LEH, interprox. Ca	Cc++, LEH	P	C	22	
28	Pm1	AM	B, periap. Ab	Cc++	P	Pm1	21	
29	Pm2	AM	B	occl. Ca, periap. Ab	P	Pm2	20	
30	M1	P	occl. Ca	B	AM	M1	19	
31	M2	P	Cc+, LEH, interprox. Ca	occl. Ca	P	M2	18	
32	M3	P	occl. Ca	Cc+, 2 interprox. Ca, LEH	P	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)	139	I	145	I
Scapula	Max glenoid width (M>29; F<26)			25,2	F
	Max glenoid length (M>36; F<34)	36,2	M	35,2	I
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)	43,4	F	43,3	F
	Epicondylar breadth (M>60.1; F<60.1)	58,8	F	57,7	F
Femur	Max head diameter (M>48; F<43)	46,5	I	47,3	I
	Epicondylar breadth (M>76; F<74)	74,5	I	76,4	M
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{3}{28} =$	0,1
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{7}{9} =$	0,8
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{-32}{19} =$	-1,7

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	F?	-1	3	-3
Nuchal plane/crest	M	2	3	6
Parietal & frontal bossing	F?	-1	2	-2
External occipital protuberance	F?	1	2	2
Frontal inclination	F?	-1	1	-1

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	M?	1	3	3
Zygomatic process	/			
Supraorbital ridge	F?	-1	2	-2
Zygomatic bone	F?	-1	2	-2
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	M?	1	3	3
Zygomatic process	M?	1	3	3
Supraorbital ridge	F?	-1	2	-2
Zygomatic bone	F?	-1	2	-2
Orbit shape & margin	/			

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	M?	1	3	3
Mental eminence	F?	-1	2	-2

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	M	2	1	2

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	M	2	1	2

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F	-2	3	-6
Greater sciatic notch	F?	-1	3	-3
Pubic arc/angle	/			
Arc composé	F	-2	2	-4
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	F	-2	1	-2
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F	-2	3	-6
Greater sciatic notch	F?	-1	3	-3
Pubic arc/angle	/			
Arc composé	F	-2	2	-4
Innominate bone	/			
Obturator foramen	/			
Ischial body	F	-2	2	-4
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		F?
Subpubic concavity		/
ischio-pubic ramus		/

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	45-49
	Right	45-49

Auricular surface (B & C 2002)	Left	Traits	Right
	3	Transverse org.	3
	4	Surface texture	4
	2	Microporosity	2
	3	Macroporosity	2
	1	Apical changes	1
	13	Composite score	12
	29-88	Age range	29-81

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)
	closed	>21

Tooth wear (Brothwell 1981)	Age
	>25

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>22		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography	2	2
Porosity	2	2
Osteophyte formation	2	2
Total	6	6
Age	41-88	41-88

## STATURE

FEMALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$57,97 + 3,36 \times \text{hum}$			30,7	161,12	4,45
Radius	$54,93 + 4,74 \times \text{rad}$					4,24
Ulna	$57,76 + 4,27 \times \text{ulna}$					4,3
Femur	$54,10 + 2,47 \times \text{fem}$	42,5	159,08	42,8	159,82	3,72
Tibia	$61,53 + 2,90 \times \text{tib}$			34,4	161,29	3,66
Fibula	$59,61 + 2,93 \times \text{fib}$					3,57
Femur + tibia	$53,2 + 1,39 \times (\text{fem} + \text{tib})$			77,2	160,51	3,55





Overzichtsfoto individu in situ

## SKELETAL STATUS

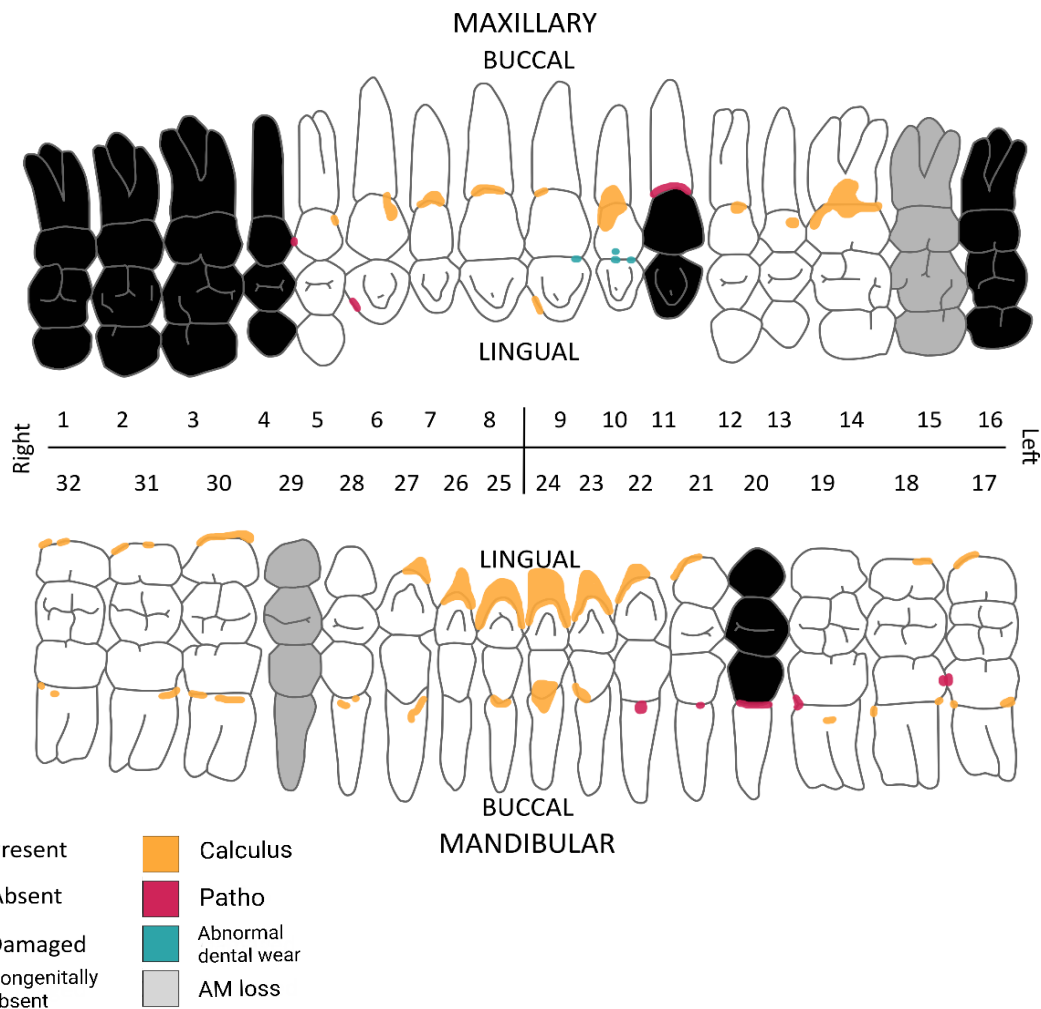


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	P	Cc+	Cc+, chipping	P	I1	9	
7	I2	P	Cc+	Cc++, chipping	P	I2	10	
6	C	P	Cc+, interprox. Ca	occl. Ca	P	C	11	
5	Pm1	P	Cc+, interprox. Ca	Cc+	P	Pm1	12	
4	Pm2	M		Cc+	P	Pm2	13	
3	M1	M		Cc++	P	M1	14	
2	M2	M		B	AM	M2	15	
1	M3	M			M	M3	16	
25	I1	P	Cc++	Cc+++	P	I1	24	
26	I2	P	Cc++	Cc++	P	I2	23	
27	C	P	Cc++	Cc++, bucc. Ca	P	C	22	
28	Pm1	P	Cc+	Cc+, Bucc. Pit	P	Pm1	21	
29	Pm2	AM	B	occl. Ca	P	Pm2	20	
30	M1	P	Cc+	Cc+, interprox. Ca	P	M1	19	
31	M2	P	Cc+	Cc+, interprox. Ca	P	M2	18	
32	M3	P	Cc+	Cc+, interprox. Ca	P	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)			133	F
Scapula	Max glenoid width (M>29; F<26)	24,3	F	25	F
	Max glenoid length (M>36; F<34)			35,2	I
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)				
Femur	Max head diameter (M>48; F<43)				
	Epicondylar breadth (M>76; F<74)				
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{5}{11} =$	<b>0,5</b>
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{-2}{8} =$	<b>-0,3</b>
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{-34}{18} =$	<b>-1,9</b>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	/			
Nuchal plane/crest	I	0	3	0
Parietal & frontal bossing	/			
External occipital protuberance	M?	1	2	2
Frontal inclination	/			

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	M?	1	3	3
Zygomatic process	/			
Supraorbital ridge	/			
Zygomatic bone	/			
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	I	0	3	0
Zygomatic process	/			
Supraorbital ridge	/			
Zygomatic bone	/			
Orbit shape & margin	/			



<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	I	0	3	0
Mental eminence	F?	-1	2	-2

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	F	-2	1	-2
Inferior margin	M?	1	1	1

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	/			
Inferior margin	M?	1	1	1

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F	-2	3	-6
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	/			
Arc composé	F	-2	2	-4
Innominate bone	/			
Obturator foramen	/			
Ischial body	F?	-1	2	-2
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F	-2	3	-6
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	/			
Arc composé	F	-2	2	-4
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		



## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	40-44
	Right	

Auricular surface (B & C 2002)	Left	Traits	Right
	4	Transverse org.	
	4	Surface texture	
	3	Microporosity	
	1	Macroporosity	
	1	Apical changes	
	13	Composite score	0
	29-88	Age range	

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)
	closed	>21

Tooth wear (Brothwell 1981)	Age
	25-35

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>22		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography	2	2
Porosity	1	1
Osteophyte formation	2	2
Total	5	5
Age	35-63	35-63

## STATURE

Geen complete lange pijpbeenderen.



Overzichtsfoto individu in situ

## SKELETAL STATUS

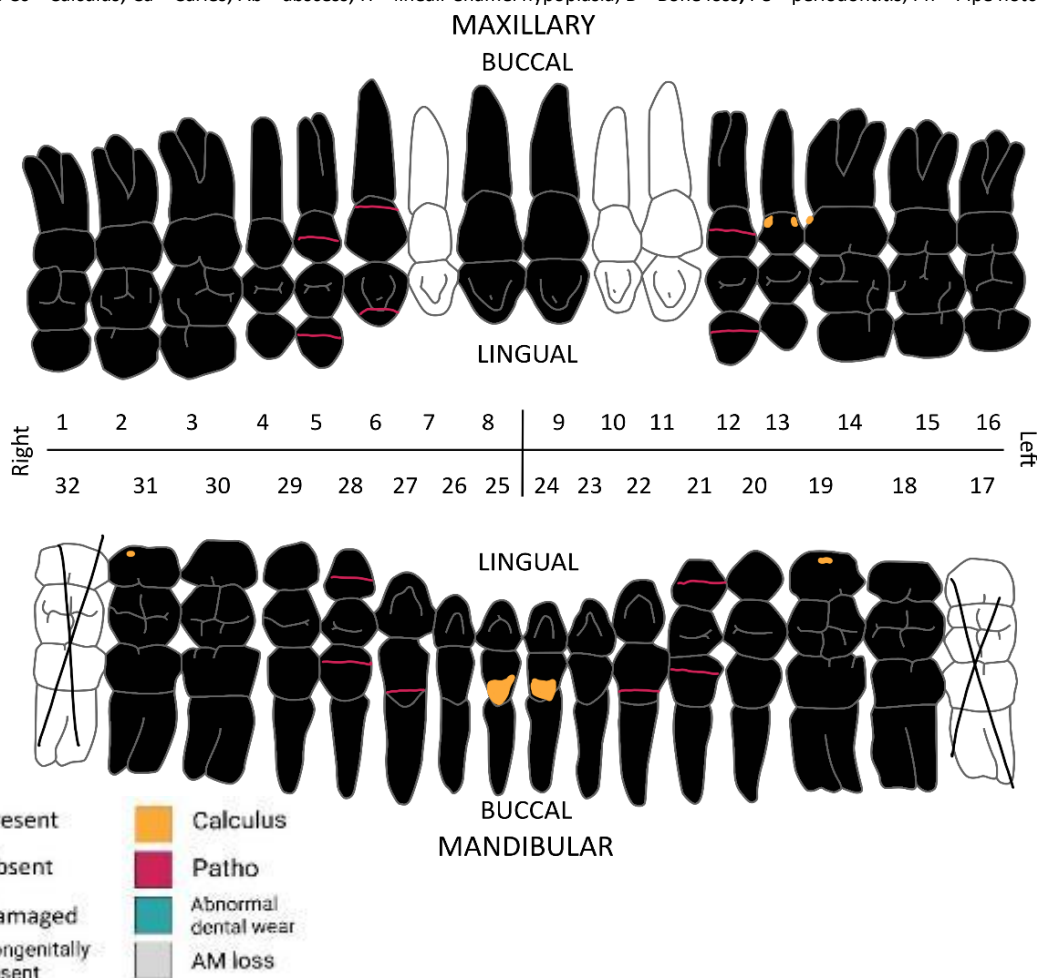


## DENTAL STATUS

MAXILLA							
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.
8	I1	P			P	I1	9
7	I2	PM			PM	I2	10
6	C	P	LEH		PM	C	11
5	Pm1	P	LEH	LEH	P	Pm1	12
4	Pm2	P		Cc+	P	Pm2	13
3	M1	P		Cc+	P	M1	14
2	M2	P			P	M2	15
1	M3	P			P	M3	16
25	I1	P	Cc++	Cc++	P	I1	24
26	I2	P			P	I2	23
27	C	P	LEH	LEH	P	C	22
28	Pm1	P	LEH	LEH	P	Pm1	21
29	Pm2	P			P	Pm2	20
30	M1	P		Cc+	P	M1	19
31	M2	P	Cc+		P	M2	18
32	M3	C			C	M3	17
MANDIBLE							

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch





## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)	23	F	22,4	F
	Max glenoid length (M>36; F<34)	34,2	I	34,6	I
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)	39	F	39,2	F
	Epicondylar breadth (M>60.1; F<60.1)	52,7	F	53,8	F
Femur	Max head diameter (M>48; F<43)	42,2	F		
	Epicondylar breadth (M>76; F<74)	71,2	F	72,5	F
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{-2}{25} =$	<b>-0,1</b>
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{10}{9} =$	<b>1,1</b>
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{-30}{18} =$	<b>-1,7</b>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	M?	1	3	3
Nuchal plane/crest	/			
Parietal & frontal bossing	M	2	2	4
External occipital protuberance	/			
Frontal inclination	M?	1	1	1

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	F	-2	3	-6
Zygomatic process	I	0	3	0
Supraorbital ridge	M?	1	2	2
Zygomatic bone	F?	-1	2	-2
Orbit shape & margin	F	-2	1	-2

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	/			
Zygomatic process	I	0	3	0
Supraorbital ridge	M?	1	2	2
Zygomatic bone	F?	-1	2	-2
Orbit shape & margin	F	-2	1	-2

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	M?	1	3	3
Mental eminence	M?	1	2	2

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	M	2	1	2

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	M?	1	1	1

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F?	-1	3	-3
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	/			
Arc composé	F	-2	2	-4
Innominate bone	/			
Obturator foramen	/			
Ischial body	F	-2	2	-4
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F?	-1	3	-3
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	/			
Arc composé	F	-2	2	-4
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	20-24
	Right	20-24

Auricular surface (B & C 2002)	Left	Traits	Right
	2	Transverse org.	2
	2	Surface texture	2
	1	Microporosity	1
	1	Macroporosity	1
	1	Apical changes	1
	7	Composite score	7
	21-38	Age range	21-38

Third molar root mineralisation (Brickely & McKinley 2004)	apex	age (17-25)
	closed	>21

Tooth wear (Brothwell 1981)	Age
	25-35

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		18-22		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		
Porosity		
Osteophyte formation		
Total	0	0
Age		

## STATURE

FEMALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$57,97 + 3,36 \times \text{hum}$	30,65	160,95	31,05	162,30	4,45
Radius	$54,93 + 4,74 \times \text{rad}$					4,24
Ulna	$57,76 + 4,27 \times \text{ulna}$					4,3
Femur	$54,10 + 2,47 \times \text{fem}$	42,8	159,82	43,3	161,05	3,72
Tibia	$61,53 + 2,90 \times \text{tib}$			34,5	161,58	3,66
Fibula	$59,61 + 2,93 \times \text{fib}$					3,57
Femur + tibia	$53,2 + 1,39 \times (\text{fem} + \text{tib})$			77,8	161,34	3,55



Overzichtsfoto individu in situ



## SKELETAL STATUS



## DENTAL STATUS

Dental record niet bewaard.

## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)	142	I		
Scapula	Max glenoid width (M>29; F<26)	25,6	F		
	Max glenoid length (M>36; F<34)	35,4	I		
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)	44,2	F		
	Epicondylar breadth (M>60.1; F<60.1)				
Femur	Max head diameter (M>48; F<43)	43,1	I		
	Epicondylar breadth (M>76; F<74)				
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA	$\frac{\sum Wx}{\sum W}$		=	
cranium				
WEA	$\frac{\sum Wx}{\sum W}$		=	
mandible				
WEA os	$\frac{\sum Wx}{10}$	-16	=	-1,6
coxae				

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F	-2	3	-6
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	/			
Arc composé	F	-2	2	-4
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	M	2	1	2
Iliac fossa	F	-2	1	-2
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		

**AGE ESTIMATION**

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	35-39
	Right	

Auricular surface (B & C 2002)	Left	Traits	Right
	5	Transverse org.	
	3	Surface texture	
	3	Microporosity	
	2	Macroporosity	
	1	Apical changes	
	14	Composite score	0
	29-88	Age range	



Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)					
Bone	Site	Open	Partial	Closed	
Skull	Jugular synchondroses	< 34	22-34	> 22	
Scapula	Medial border	< 23	19-23	> 19	
Vertebrae	Annular rings	< 21	14-23	>18	
Clavicle	Medial	< 23	17-30	> 21	
Ribs	Heads	< 21	17-22	> 19	
Sacrum	S1-S2 bodies	< 27	14-30	> 21	
Pelvis	Iliac crest	< 20	14-22	> 18	
Manubrium	1st costal notch	< 23	18-25	> 21	
Sternum	B1-B2	< 25	15-25	> 15	
	B2-B3	< 20	15-20	> 11	
	B3-B4	< 15	11-20	> 4	
	B4-Xiphoid	< 40	-	> 35	
Skeletal age		>21			

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography	1	1
Porosity	2	2
Osteophyte formation	2	2
Total	5	5
Age	35-63	35-63

## STATURE

FEMALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$57,97 + 3,36 \times \text{hum}$	30	158,77			4,45
Radius	$54,93 + 4,74 \times \text{rad}$					4,24
Ulna	$57,76 + 4,27 \times \text{ulna}$	23,9	159,81			4,3
Femur	$54,10 + 2,47 \times \text{fem}$					3,72
Tibia	$61,53 + 2,90 \times \text{tib}$					3,66
Fibula	$59,61 + 2,93 \times \text{fib}$					3,57
Femur + tibia	$53,2 + 1,39 \times (\text{fem} + \text{tib})$					3,55



Overzichtsfoto individu in situ

## SKELETAL STATUS



## DENTAL STATUS

Dental record niet bewaard.



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left mm	Sex	Right mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)	28	I		
	Max glenoid length (M>36; F<34)	38,9	M		
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)	43,6	F		
	Epicondylar breadth (M>60.1; F<60.1)	59,9	F		
Femur	Max head diameter (M>48; F<43)	45,6	I		
	Epicondylar breadth (M>76; F<74)	73,9	F		
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$		=	
WEA mandible	$\frac{\sum Wx}{\sum W}$		=	
WEA os coxae	$\frac{\sum Wx}{19}$	33	=	1,7

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0



<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M	2	3	6
Pubic arc/angle	M?	1	2	2
Arc composé	M	2	2	4
Innominate bone	M	2	2	4
Obturator foramen	/			
Ischial body	M	2	2	4
Iliac crest	F?	-1	1	-1
Iliac fossa	M	2	1	2
Pelvic inlet (midline)	M	2	1	2

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	M	2	2	4
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc	M?	M?
Subpubic concavity	/	/
ischio-pubic ramus	M	M

**AGE ESTIMATION**

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right	45,6	10,4	27-66

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	44-50

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	
		Surface texture	
		Microporosity	
		Macroporosity	
		Apical changes	
	0	Composite score	0
		Age range	

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)					
Bone	Site	Open	Partial	Closed	
Skull	Jugular synchondroses	< 34	22-34	> 22	
Scapula	Medial border	< 23	19-23	> 19	
Vertebrae	Annular rings	< 21	14-23	>18	
Clavicle	Medial	< 23	17-30	> 21	
Ribs	Heads	< 21	17-22	> 19	
Sacrum	S1-S2 bodies	< 27	14-30	> 21	
Pelvis	Iliac crest	< 20	14-22	> 18	
Manubrium	1st costal notch	< 23	18-25	> 21	
Sternum	B1-B2	< 25	15-25	> 15	
	B2-B3	< 20	15-20	> 11	
	B3-B4	< 15	11-20	> 4	
	B4-Xiphoid	< 40	-	> 35	
Skeletal age		>21			

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography	3	
Porosity	4	
Osteophyte formation	3	
Total	10	0
Age	58-91	

## STATURE

MALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$70,45 + 3,08 \times \text{hum}$	29,4	161,00			4,05
Radius	$79,01 + 3,78 \times \text{rad}$					4,32
Ulna	$74,05 + 3,70 \times \text{ulna}$					4,32
Femur	$61,41 + 2,38 \times \text{fem}$	40,9	158,75			3,27
Tibia	$78,62 + 2,52 \times \text{tib}$	30,9	156,49	31	156,74	3,27
Fibula	$71,78 + 2,68 \times \text{fib}$					3,29
Femur + tibia	$63,29 + 1,3 \times (\text{fem} + \text{tib})$	71,8	156,63			2,99



werfbegeleiding riolering werkput 3 (bovenaan),  
opgraving werkput 2 (onderaan)



Overzichtsfoto individu in situ

## SKELETAL STATUS





## DENTAL STATUS

Dental record niet bewaard.

## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left mm	Sex	Right mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)				
	Max glenoid length (M>36; F<34)				
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)				
Femur	Max head diameter (M>48; F<43)	54,2	M		
	Epicondylar breadth (M>76; F<74)				
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$		=	
WEA mandible	$\frac{\sum Wx}{\sum W}$		=	
WEA os coxae	$\frac{\sum Wx}{\sum W}$	23	=	1,9
		12		

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M	2	3	6
Pubic arc/angle	/			
Arc composé	M	2	2	4
Innominate bone	/			
Obturator foramen	/			
Ischial body	M	2	2	4
Iliac crest	M?	1	1	1
Iliac fossa	M	2	1	2
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		

**AGE ESTIMATION**

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	30-34
	Right	

Auricular surface (B & C 2002)	Left	Traits	Right
	1	Transverse org.	
	2	Surface texture	
	1	Microporosity	
	2	Macroporosity	
	1	Apical changes	
	7	Composite score	0
	21-38	Age range	

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>18		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		
Porosity		
Osteophyte formation		
Total	0	0
Age		

## STATURE

MALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$70,45 + 3,08 \times \text{hum}$					4,05
Radius	$79,01 + 3,78 \times \text{rad}$					4,32
Ulna	$74,05 + 3,70 \times \text{ulna}$					4,32
Femur	$61,41 + 2,38 \times \text{fem}$					3,27
Tibia	$78,62 + 2,52 \times \text{tib}$	40,6	180,93			3,27
Fibula	$71,78 + 2,68 \times \text{fib}$					3,29
Femur + tibia	$63,29 + 1,3 \times (\text{fem} + \text{tib})$					2,99





Overzichtsfoto individu in situ



## SKELETAL STATUS

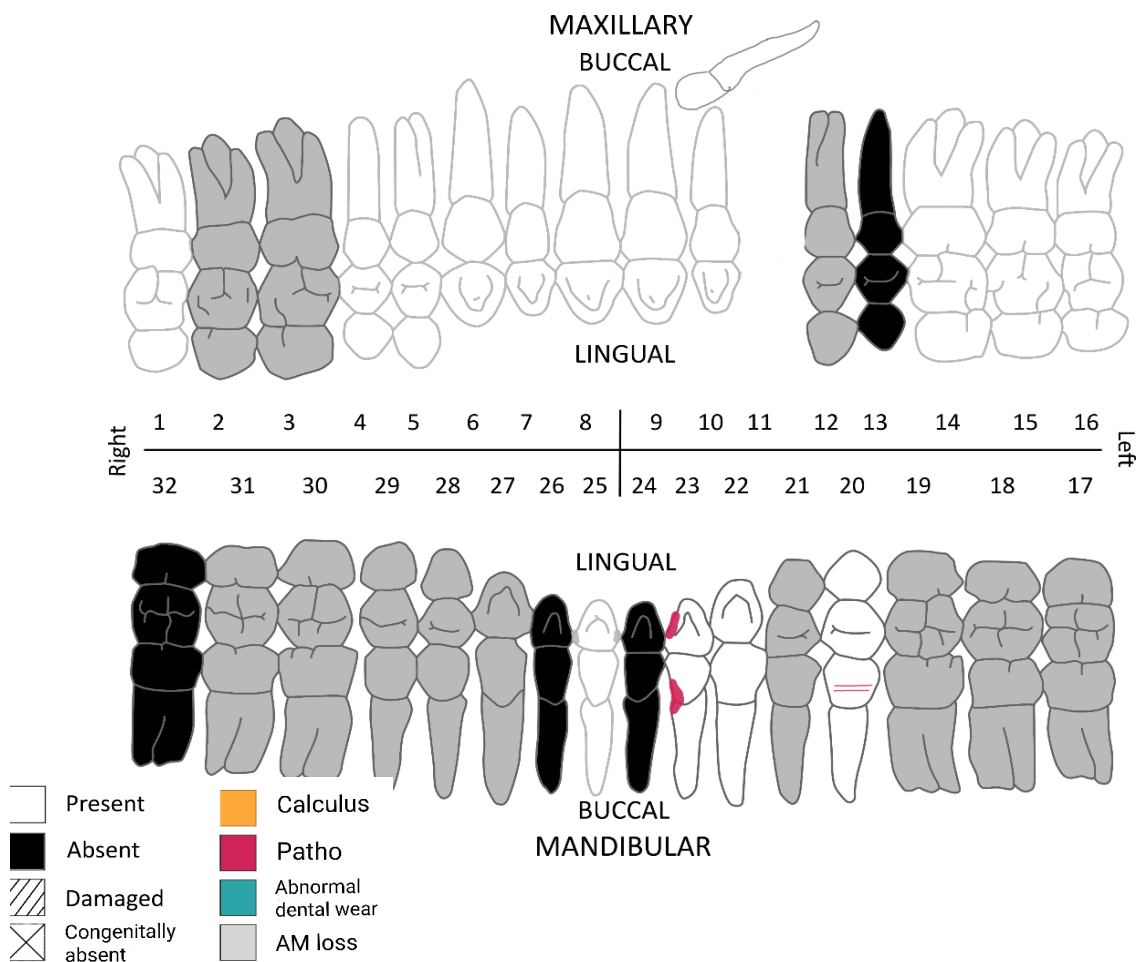


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	M			M	I1	9	
7	I2	M			M	I2	10	
6	C	M			U	C	11	
5	Pm1	M			AM	Pm1	12	
4	Pm2	M			PM	Pm2	13	
3	M1	AM			M	M1	14	
2	M2	AM			M	M2	15	
1	M3	M			M	M3	16	
25	I1	M			PM	I1	24	
26	I2	PM		Interprox. Ca	P	I2	23	
27	C	AM			P	C	22	
28	Pm1	AM			AM	Pm1	21	
29	Pm2	AM		lichte LEH	P	Pm2	20	
30	M1	AM			AM	M1	19	
31	M2	AM			AM	M2	18	
32	M3	PM			AM	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)	154	M	149	I
Scapula	Max glenoid width (M>29; F<26)	>30	M		
	Max glenoid length (M>36; F<34)	42,8	M	41	M
Humerus	Max length (M>151; M?>149; F?<144; F<140)	>173	M	>180	M
	Vertical head diameter (M>47; F<44.9)	48,3	M	47,6	M
	Epicondylar breadth (M>60.1; F<60.1)	66	M	68,4	M
Femur	Max head diameter (M>48; F<43)	49,3	M	49,8	M
	Epicondylar breadth (M>76; F<74)	80,7	M	82,1	M
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$	$\frac{26}{25} =$	<b>1,0</b>
WEA mandible	$\frac{\sum Wx}{\sum W}$	$\frac{-3}{9} =$	<b>-0,3</b>
WEA os coxae	$\frac{\sum Wx}{\sum W}$	$\frac{55}{28} =$	<b>2,0</b>

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	M	2	3	6
Nuchal plane/crest	I	0	3	0
Parietal & frontal bossing	M?	1	2	2
External occipital protuberance	F	-2	2	-4
Frontal inclination	M?	1	1	1

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	/			
Zygomatic process	/			
Supraorbital ridge	M	2	2	4
Zygomatic bone	M?	1	2	2
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	M?	1	3	3
Zygomatic process	M	2	3	6
Supraorbital ridge	M	2	2	4
Zygomatic bone	M?	1	2	2
Orbit shape & margin	/			

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	F?	-1	3	-3
Mental eminence	F?	-1	2	-2

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	I	0	1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	I	0	1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M	2	3	6
Pubic arc/angle	/			
Arc composé	M	2	2	4
Innominate bone	/			
Obturator foramen	/			
Ischial body	M	2	2	4
Iliac crest	/			
Iliac fossa	M	2	1	2
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M	2	3	6
Pubic arc/angle	M	2	2	4
Arc composé	M	2	2	4
Innominate bone	M	2	2	4
Obturator foramen	/			
Ischial body	M	2	2	4
Iliac crest	M?	1	1	1
Iliac fossa	M	2	1	2
Pelvic inlet (midline)	M	2	1	2

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		



# AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	40-44

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	5
		Surface texture	4
		Microporosity	3
		Macroporosity	2
		Apical changes	1
	0	Composite score	15
		Age range	39-91

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>21		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		2
Porosity		3
Osteophyte formation		2
Total		7
Age		37-73

## STATURE

MALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$70,45 + 3,08 \times \text{hum}$	32,2	169,63	32,9	171,78	4,05
Radius	$79,01 + 3,78 \times \text{rad}$					4,32
Ulna	$74,05 + 3,70 \times \text{ulna}$					4,32
Femur	$61,41 + 2,38 \times \text{fem}$	45,8	170,41	45,7	170,18	3,27
Tibia	$78,62 + 2,52 \times \text{tib}$	37,8	173,88	37,5	173,12	3,27
Fibula	$71,78 + 2,68 \times \text{fib}$					3,29
Femur + tibia	$63,29 + 1,3 \times (\text{fem} + \text{tib})$	83,6	171,97	83,2	171,45	2,99



werfbegeleiding riolering werkput 3 (bovenaan),  
opgraving werkput 2 (onderaan)



Overzichtsfoto individu in situ

## SKELETAL STATUS



## DENTAL STATUS

Dental record niet bewaard.



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)			141	I
Scapula	Max glenoid width (M>29; F<26)			28,3	I
	Max glenoid length (M>36; F<34)			38,4	M
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)			46,9	I
	Epicondylar breadth (M>60.1; F<60.1)			65,4	M
Femur	Max head diameter (M>48; F<43)			49,2	M
	Epicondylar breadth (M>76; F<74)				
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$		=	<input type="text"/>
WEA mandible	$\frac{\sum Wx}{\sum W}$		=	<input type="text"/>
WEA os coxae	$\frac{\sum Wx}{14}$	2	=	0,1

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M?	1	3	3
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	M?	1	2	2
Arc composé	F?	-1	2	-2
Innominate bone	/			
Obturator foramen	/			
Ischial body	M?	1	2	2
Iliac crest	M	2	1	2
Iliac fossa	M?	1	1	1
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		M
Subpubic concavity		M
ischio-pubic ramus		M?

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right	23,4	3,6	15-23

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	22-24

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	25-29

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	2
		Surface texture	1
		Microporosity	2
		Macroporosity	1
		Apical changes	1
		Composite score	7
		Age range	21-38

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)					
Bone	Site	Open	Partial	Closed	
Skull	Jugular synchondroses	< 34	22-34	> 22	
Scapula	Medial border	< 23	19-23	> 19	
Vertebrae	Annular rings	< 21	14-23	>18	
Clavicle	Medial	< 23	17-30	> 21	
Ribs	Heads	< 21	17-22	> 19	
Sacrum	S1-S2 bodies	< 27	14-30	> 21	
Pelvis	Iliac crest	< 20	14-22	> 18	
Manubrium	1st costal notch	< 23	18-25	> 21	
Sternum	B1-B2	< 25	15-25	> 15	
	B2-B3	< 20	15-20	> 11	
	B3-B4	< 15	11-20	> 4	
	B4-Xiphoid	< 40	-	> 35	
Skeletal age		21-30			

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		
Porosity		
Osteophyte formation		
Total	0	0
Age		

## STATURE

MALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$70,45 + 3,08 \times \text{hum}$			33	172,09	4,05
Radius	$79,01 + 3,78 \times \text{rad}$					4,32
Ulna	$74,05 + 3,70 \times \text{ulna}$					4,32
Femur	$61,41 + 2,38 \times \text{fem}$					3,27
Tibia	$78,62 + 2,52 \times \text{tib}$	37,2	172,36	37,6	173,37	3,27
Fibula	$71,78 + 2,68 \times \text{fib}$					3,29
Femur + tibia	$63,29 + 1,3 \times (\text{fem} + \text{tib})$					2,99



Overzichtsfoto individu in situ



## SKELETAL STATUS



## DENTAL STATUS

Dental record niet aanwezig.

## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)				
	Max glenoid length (M>36; F<34)				
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)				
Femur	Max head diameter (M>48; F<43)	40,2	F	40,6	F
	Epicondylar breadth (M>76; F<74)	67,1	F	67	F
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$		=	
WEA mandible	$\frac{\sum Wx}{\sum W}$		=	
WEA os coxae	$\frac{\sum Wx}{\sum W}$	-17	=	-1,4
		12		

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	F	-2	3	-6
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	/			
Arc composé	F?	-1	2	-2
Innominate bone	/			
Obturator foramen	/			
Ischial body	F?	-1	2	-2
Iliac crest	M?	1	1	1
Iliac fossa	F	-2	1	-2
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		

**AGE ESTIMATION**

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left			
	Right			

Pubic symphysis (Todd 1970)	Side	Range
	Left	
	Right	

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	30-34

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	2
		Surface texture	2
		Microporosity	2
		Macroporosity	1
		Apical changes	1
	0	Composite score	8
		Age range	21-38



Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>18		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		
Porosity		
Osteophyte formation		
Total	0	0
Age		

## STATURE

FEMALE STATURE (Trotter 1970)						
Bone	Formula	cm L	Length L	cm R	Length R	S.D.
Humerus	$57,97 + 3,36 \times \text{hum}$					4,45
Radius	$54,93 + 4,74 \times \text{rad}$					4,24
Ulna	$57,76 + 4,27 \times \text{ulna}$					4,3
Femur	$54,10 + 2,47 \times \text{fem}$	37	145,49	36,7	144,75	3,72
Tibia	$61,53 + 2,90 \times \text{tib}$	29,5	147,08	29,4	146,79	3,66
Fibula	$59,61 + 2,93 \times \text{fib}$					3,57
Femur + tibia	$53,2 + 1,39 \times (\text{fem} + \text{tib})$	66,5	145,64	66,1	145,08	3,55



Overzichtsfoto individu in situ

## SKELETAL STATUS



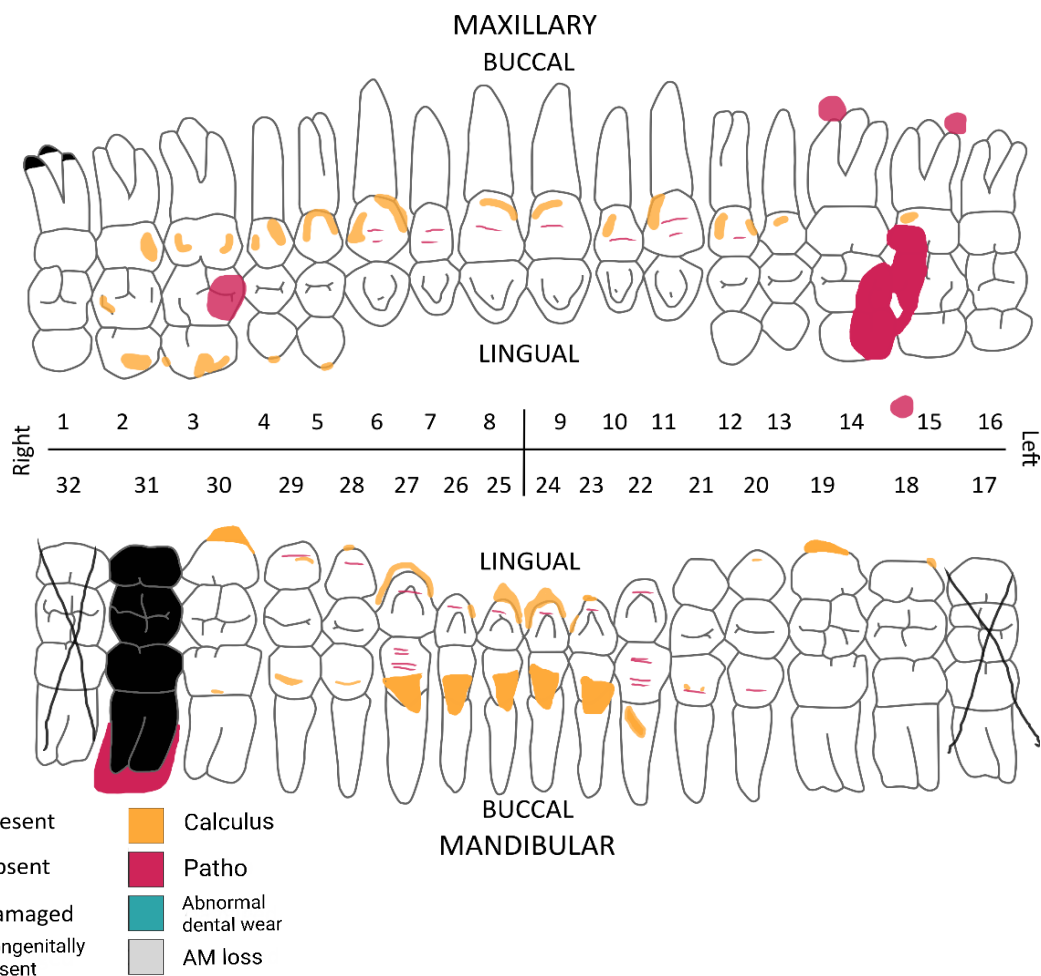


## DENTAL STATUS

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	P	Cc+, LEH	Cc+, LEH	P	I1	9	
7	I2	P	Cc+, LEH	Cc+, LEH	P	I2	10	
6	C	P	Cc++, LEH	Cc+, LEH	P	C	11	
5	Pm1	P	Cc++	Cc+, LEH	P	Pm1	12	
4	Pm2	P	Cc++	Cc+	P	Pm2	13	
3	M1	P	interprox. Ca, Cc+	interprox. Ca, 1 periap. Ab	P	M1	14	
2	M2	P	Cc+	interprox. Ca, 1 periap. Ab, Cc+	P	M2	15	
1	M3	E			E	M3	16	
25	I1	P	Cc++, LEH	Cc++, LEH	P	I1	24	
26	I2	P	Cc++, LEH	Cc++, LEH	P	I2	23	
27	C	P	Cc++, LEH	Cc+, LEH	P	C	22	
28	Pm1	P	Cc+, LEH	Cc+, LEH	P	Pm1	21	
29	Pm2	P	Cc+, LEH	Cc+, LEH	P	Pm2	20	
30	M1	P	Cc+	Cc+	P	M1	19	
31	M2	PM	periap. Ab	Cc+	P	M2	18	
32	M3	C			C	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)	25,2	I	25,8	I
	Max glenoid length (M>36; F<34)	37,7	M	37,9	M
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)			59,8	F
Femur	Max head diameter (M>48; F<43)	45,6	I	45,9	I
	Epicondylar breadth (M>76; F<74)				
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS

WEA cranium	$\frac{\Sigma Wx}{\Sigma W}$	$\frac{21}{17} =$	1,2
WEA mandible	$\frac{\Sigma Wx}{\Sigma W}$	$\frac{16}{9} =$	1,8
WEA os coxae	$\frac{\Sigma Wx}{\Sigma W}$	$\frac{35}{25} =$	1,4

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella	M?	1	3	3
Nuchal plane/crest	M	2	3	6
Parietal & frontal bossing	/			
External occipital protuberance	I	0	2	0
Frontal inclination	/			

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process	M	2	3	6
Zygomatic process	/			
Supraorbital ridge	M?	1	2	2
Zygomatic bone	M?	1	2	2
Orbit shape & margin	/			

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process	/			
Zygomatic process	/			
Supraorbital ridge	M?	1	2	2
Zygomatic bone	/			
Orbit shape & margin	/			



<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect	M	2	3	6
Mental eminence	M	2	2	4

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	M	2	1	2

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle	M?	1	1	1
Inferior margin	M	2	1	2

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M?	1	3	3
Pubic arc/angle	/			
Arc composé	M	2	2	4
Innominate bone	/			
Obturator foramen	F?	-1	2	-2
Ischial body	M	2	2	4
Iliac crest	M?	1	1	1
Iliac fossa	M?	1	1	1
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M?	1	3	3
Pubic arc/angle	/			
Arc composé	M	2	2	4
Innominate bone	/			
Obturator foramen	M	2	2	4
Ischial body	/			
Iliac crest	/			
Iliac fossa	M?	1	1	1
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		M
Subpubic concavity		M
ischio-pubic ramus		M

## AGE ESTIMATION

Dental eruption and mineralization 1978; WEA 1980)	(Ubelaker	Dental age
		15-25

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Spheno occipital synchondrosis	< 18	11-18	> 11
Scapula	Acromiom	< 20	15-20	> 15
	Coraco-Glenoid	< 16	14-18	> 16
	Medial border	< 23	19-23	> 19
	Inferior angle	< 21	17-22	> 17
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Humerus	Proximal	< 20	14-21	> 16
	Medial	< 18	13-18	> 13
	Distal	< 15	11-18	> 12
Ulna	Proximal	< 16	12-18	> 12
	Distal	< 20	15-20	> 15
Radius	Proximal	< 18	12-18	> 13
	Distal	< 19	14-20	> 15
Hand	MC's and phalanges	< 17	11-18	> 12
Sacrum	Auricular surface	< 21	15-21	> 17
	S1-S2 bodies	< 27	14-30	> 21
	S1-S2 alae	< 20	11-27	> 19
	S2-S5 bodies	< 20	12-28	> 19
	S2-S5 alae	< 16	10-21	> 13
Pelvis	Iliac crest	< 20	14-22	> 18
	Ant inf iliac spine	< 18	14-18	> 15
	Ischial tuberosity	< 18	14-20	> 16
Femur	Head	< 18	14-19	> 14
	Greater trochanter	< 18	14-19	> 14
	Lesser trochanter	< 18	16-19	> 14
	Distal	< 19	14-20	> 17
Vertebrae	Annular Rings	< 21	14-23	> 18
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
Skeletal age		16-18		

## STATURE

Lange pijpbeenderen zijn nog niet volgroeid en incompleet.



Overzichtsfoto individu in situ

## SKELETAL STATUS



## DENTAL STATUS

Dental record niet bewaard.



## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left mm	Sex	Right mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)	25,1	F	24,8	F
	Max glenoid length (M>36; F<34)			34,3	I
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)				
Femur	Max head diameter (M>48; F<43)			44,2	I
	Epicondylar breadth (M>76; F<74)				
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS - WEA

WEA cranium	$\frac{\sum Wx}{\sum W}$		=	
WEA mandible	$\frac{\sum Wx}{\sum W}$		=	
WEA os coxae	$\frac{\sum Wx}{\sum W}$	-18 10	=	-1,8

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	/			
Arc composé	F?	-1	2	-2
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	F	-2	3	-6
Pubic arc/angle	/			
Arc composé	F	-2	2	-4
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc	V	V
Subpubic concavity	/	/
ischio-pubic ramus	I	I

## AGE ESTIMATION

Pubic symphysis (Suchey & Brooks 1990)	Side	Mean	S.D.	Range
	Left	38,2	10,9	26-70
	Right	38,2	10,9	26-70

Pubic symphysis (Todd 1970)	Side	Range
	Left	39-44
	Right	39-44

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Jugular synchondroses	< 34	22-34	> 22
Scapula	Medial border	< 23	19-23	> 19
Vertebrae	Annular rings	< 21	14-23	>18
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Sacrum	S1-S2 bodies	< 27	14-30	> 21
Pelvis	Iliac crest	< 20	14-22	> 18
Manubrium	1st costal notch	< 23	18-25	> 21
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
	B3-B4	< 15	11-20	> 4
	B4-Xiphoid	< 40	-	> 35
Skeletal age		>21		

Sternal end (Falys & Prangle 2015), vanaf 35 jaar		
Marker	Left	Right
Topography		1
Porosity		1
Osteophyte formation		2
Total	0	4
Age	35-63	

## STATURE

Geen complete lange pijpbeenderen.



Overzichtsfoto individu in situ

## SKELETAL STATUS





## DENTAL STATUS

Dental record niet bewaard.

## SEX ESTIMATION

### METRIC TRAITS

Measurements (Bass 2005)		Left		Right	
		mm	Sex	mm	Sex
Clavicle	Max length (M>150; F<138)				
Scapula	Max glenoid width (M>29; F<26)				
	Max glenoid length (M>36; F<34)				
Humerus	Max length (M>151; M?>149; F?<144; F<140)				
	Vertical head diameter (M>47; F<44.9)				
	Epicondylar breadth (M>60.1; F<60.1)				
Femur	Max head diameter (M>48; F<43)	45,5	I		
	Epicondylar breadth (M>76; F<74)				
Os coxae	Ischiopubic index (M = 52-71; F = 68 - 91)				

### NON-METRIC TRAITS

WEA cranium	$\frac{\sum Wx}{\sum W}$		=	
WEA mandible	$\frac{\sum Wx}{\sum W}$		=	
WEA os coxae	$\frac{\sum Wx}{\sum W}$	11	=	1,4
		8		

Cranial trait (midline)	Letter	Number	Weight	no x weight
Glabella			3	0
Nuchal plane/crest			3	0
Parietal & frontal bossing			2	0
External occipital protuberance			2	0
Frontal inclination			1	0

Cranial trait (bilateral)	LEFT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

Cranial trait (bilateral)	RIGHT			
	Letter	Number	Weight	no x weight
Mastoid process			3	0
Zygomatic process			3	0
Supraorbital ridge			2	0
Zygomatic bone			2	0
Orbit shape & margin			1	0

<b>Mandible trait (midline)</b>	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Total aspect			3	0
Mental eminence			2	0

<b>Mandible trait (bilateral)</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Mandible trait (bilateral)</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Gonial angle			1	0
Inferior margin			1	0

<b>Pelvic trait</b>	LEFT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	/			
Greater sciatic notch	/			
Pubic arc/angle	/			
Arc composé	/			
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

<b>Pelvic trait</b>	RIGHT			
	<b>Letter</b>	<b>Number</b>	<b>Weight</b>	<b>no x weight</b>
Pre-auricular sulcus	M	2	3	6
Greater sciatic notch	M?	1	3	3
Pubic arc/angle	/			
Arc composé	M?	1	2	2
Innominate bone	/			
Obturator foramen	/			
Ischial body	/			
Iliac crest	/			
Iliac fossa	/			
Pelvic inlet (midline)	/			

#### NON-METRIC TRAITS - PHENICE 1969

<b>Os pubis</b>	<b>Left</b>	<b>Right</b>
Ventral arc		
Subpubic concavity		
ischio-pubic ramus		

## AGE ESTIMATION

Late skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Skull	Spheno occipital synchondrosis	< 18	11-18	> 11
Scapula	Acromiom	< 20	15-20	> 15
	Coraco-Glenoid	< 16	14-18	> 16
	Medial border	< 23	19-23	> 19
	Inferior angle	< 21	17-22	> 17
Clavicle	Medial	< 23	17-30	> 21
Ribs	Heads	< 21	17-22	> 19
Humerus	Proximal	< 20	14-21	> 16
	Medial	< 18	13-18	> 13
	Distal	< 15	11-18	> 12
Ulna	Proximal	< 16	12-18	> 12
	Distal	< 20	15-20	> 15
Radius	Proximal	< 18	12-18	> 13
	Distal	< 19	14-20	> 15
Hand	MC's and phalanges	< 17	11-18	> 12
Sacrum	Auricular surface	< 21	15-21	> 17
	S1-S2 bodies	< 27	14-30	> 21
	S1-S2 alae	< 20	11-27	> 19
	S2-S5 bodies	< 20	12-28	> 19
	S2-S5 alae	< 16	10-21	> 13
Pelvis	Iliac crest	< 20	14-22	> 18
	Ant inf iliac spine	< 18	14-18	> 15
	Ischial tuberosity	< 18	14-20	> 16
Femur	Head	< 18	14-19	> 14
	Greater trochanter	< 18	14-19	> 14
	Lesser trochanter	< 18	16-19	> 14
	Distal	< 19	14-20	> 17
Tibia	Proximal	< 18	14-20	> 17
	Distal	< 18	14-18	> 15
Fibula	Proximal	< 19	14-20	> 15
	Distal	< 18	14-18	> 15
Foot	Calcaneus	< 20	10-20	> 10
	MT's and phalanges	< 17	11-16	> 11
Vertebrae	Annular Rings	< 21	14-23	> 18
Sternum	B1-B2	< 25	15-25	> 15
	B2-B3	< 20	15-20	> 11
Skeletal age		15-20		

Auricular surface (Lovejoy et al. 1985)	Side	Range
	Left	
	Right	<24

Auricular surface (B & C 2002)	Left	Traits	Right
		Transverse org.	1
		Surface texture	2
		Microporosity	1
		Macroporosity	1
		Apical changes	1
	0	Composite score	6
		Age range	16-19

## STATURE

Geen complete lange pijpbeenderen.





# SKELETFORMULIER

Site: 2023-0164 Boutersem O.L.V.H-kerk

Waarnemer: Nandy Dolman

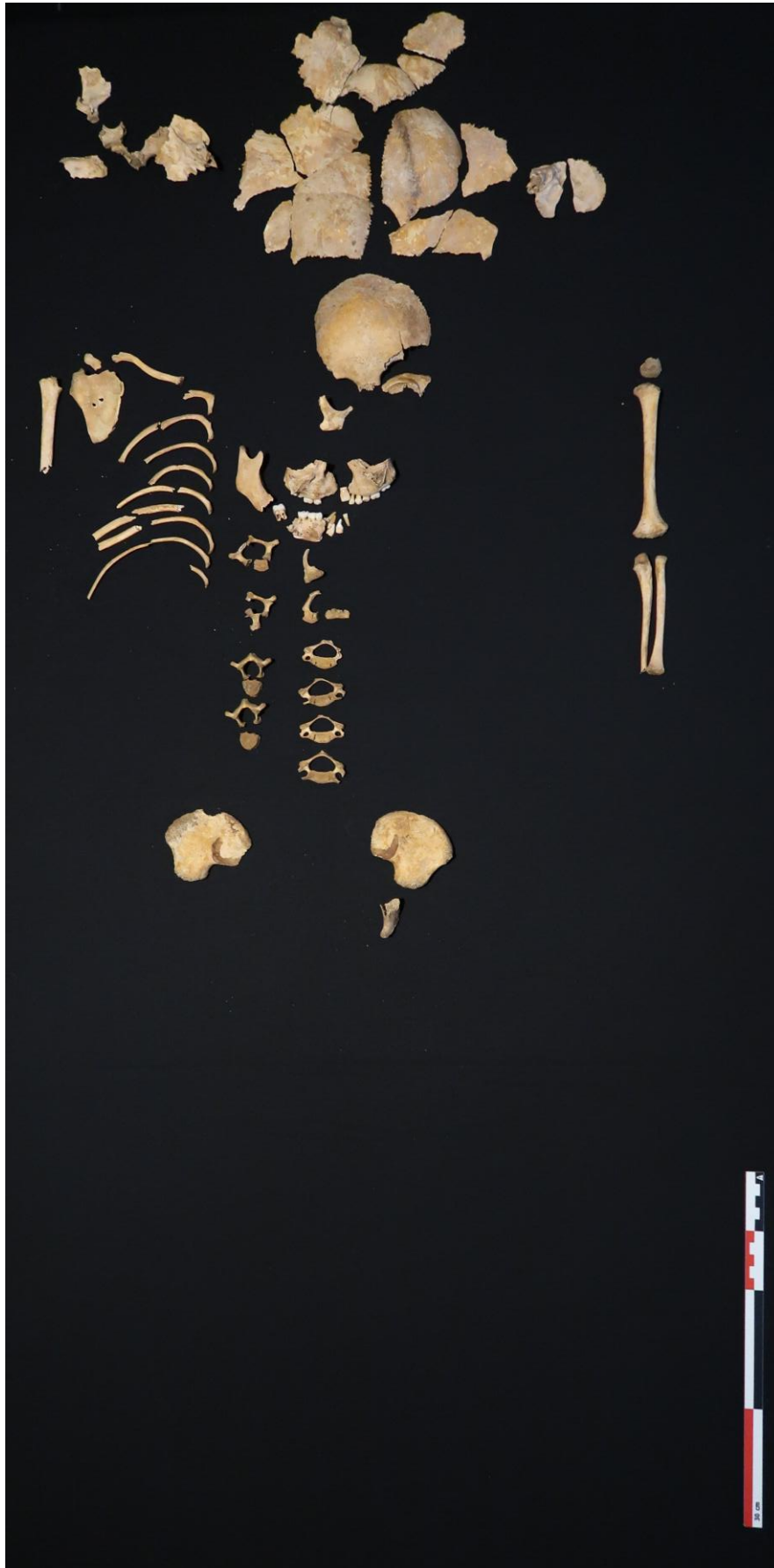
IND: 97

Datum: 08/01/2025



Overzichtsfoto individu in situ

## SKELETAL STATUS



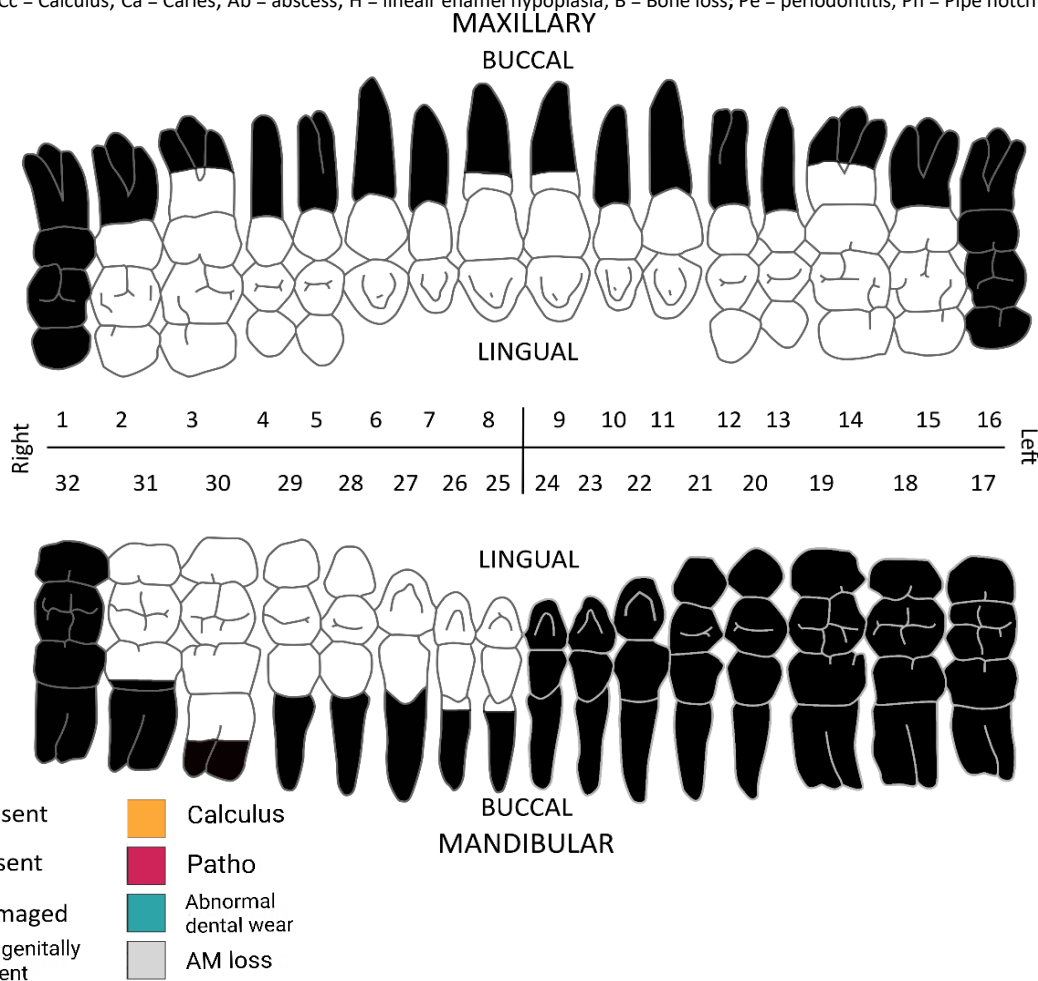
# DENTAL STATUS

## PERMANENT DENTITION

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
8	I1	U			U	I1	9	
7	I2	U			U	I2	10	
6	C	U			U	C	11	
5	Pm1	U			U	Pm1	12	
4	Pm2	U			U	Pm2	13	
3	M1	E			E	M1	14	
2	M2	U			U	M2	15	
1	M3	/			/	M3	16	
25	I1	U			M	I1	24	
26	I2	U			M	I2	23	
27	C	U			M	C	22	
28	Pm1	U			M	Pm1	21	
29	Pm2	U			M	Pm2	20	
30	M1	E			M	M1	19	
31	M2	U			M	M2	18	
32	M3	/			M	M3	17	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch

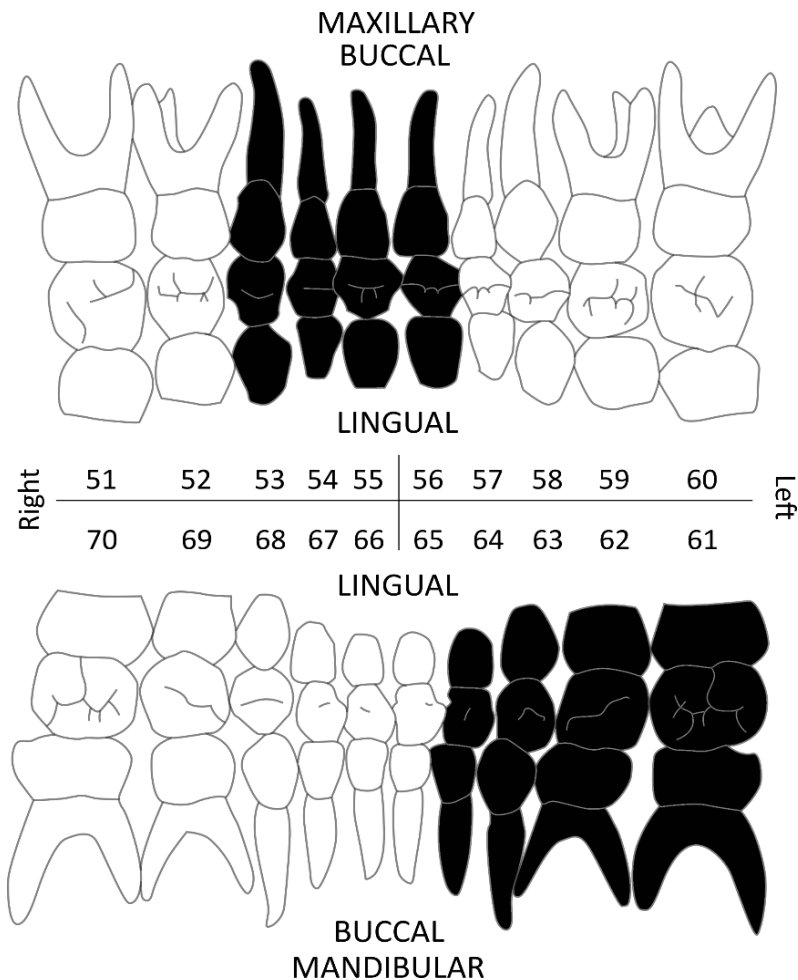










## DECIDUOUS DENTITION

MAXILLA								
Nr.	Tooth	Status	Remarks	Remarks	Status	Tooth	Nr.	
55	di1	PM			PM	di1	56	
54	di2	PM			P	di2	57	
53	dc	PM			P	dc	58	
52	dm1	P			P	dm1	59	
51	dm2	P			P	dm2	60	
66	di1	P			P	di1	65	
67	di2	P			M	di2	64	
68	dc	P			M	dc	63	
69	dm1	P			M	dm1	62	
70	dm2	P			M	dm2	61	
MANDIBLE								

**Status:** P = Present; AM = Antemortem loss; PM = Postmortem loss; M = Missing; E = Erupting; U = Unerupted; C = Congenitally absent

**Remarks:** Cc = Calculus; Ca = Caries; Ab = abscess; H = linear enamel hypoplasia; B = Bone loss; Pe = periodontitis; Pn = Pipe notch



	Present		Calculus
	Absent		Patho
	Damaged		Abnormal dental wear
	Congenitally absent		AM loss

## AGE ESTIMATION

Dental eruption and mineralization 1978; WEA 1980)	(Ubelaker	Dental age
		3,5-6,5

Skeletal fusion (Maat & Mastwijk 1995, Scheuer and Black 2000, Shaefer et al. 2009)				
Bone	Site	Open	Partial	Closed
Frontal	Mesotopic suture	< 4	0-4	> 0
Occipital	Pars laterales to pars basilaris	< 4	2-4	> 2
	Basilar part to occipital bone	< 7	5-7	> 5
Mandible	Mandibular symphysis	< 8	3 mth-8	> 3 mths
Vertebrae	Neural arches of C3-C5	< 2	6 mth-2	> 6 mths
	Neural arches of C2	< 4	3-5	> 3
	Neural arches of C1	< 5	4-5	> 4
	Neural arches to centrum (C3-L5)	< 5	2-5	> 2
	Dens to neural arch	< 4	3-4	> 3
	Centrum to neural arch (C2)	< 6	4-5	> 4
	Neural arch to anterior bar (C1)	< 5	4-5	> 4
Sacrum	lateral element to neural arch	< 5	2-5	> 2
	Wing to centra	< 6	2-6	> 2
Pelvis	Ischiopubic ramus	< 8	5-8	> 5
Humerus	Greater and lesser tubercles to head	< 6	2-6	> 2
Skeletal age		2-4		

Juvenile long bone measurements (Schaefer et al. 2009)				
Bone	Measurement	L	R	Age
Clavicle	Length (mm)			
Pelvis	Length (cm)	69,3		2-3
	Width (cm)			
Humerus	Length (mm)	141		2,5-3
Radius	Length (mm)			
Ulna	Length (mm)	106		1,5-2
Femur	Length (mm)			
Tibia	Length (mm)			
Fibula	Length (mm)			
Skeletal age		2-3		